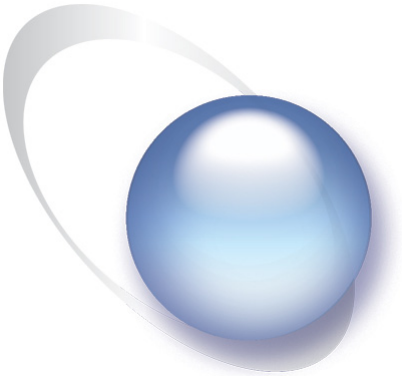

resource Scheduler v7.50

Administration Guide

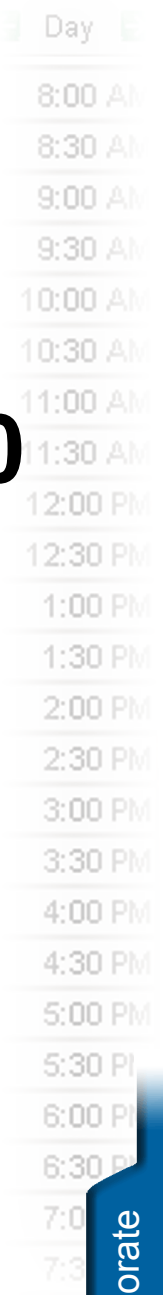

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Table Of Contents

Preface i
- **Resource Scheduler Components** i
  - Resource Scheduler Modules ii
  - Other Products from Meeting Maker, Inc. iii
- **Technical Support** iv
  - The Meeting Maker, Inc. Support Center iv
  - Professional Services v
  - Training Services v
- **Documentation Conventions** vi
- **About This Book** vii

Chapter 1: Planning Your Resource Scheduler Environment 1
- **Overview** 1
- **What Resource Scheduler Can Do For You** 2
- **System Requirements** 5
  - Server Requirements 5
  - Application Data 6
  - Client Requirements 6
- **Planning Your Resource Scheduler Environment** 7
- **System Planning Recommendations** 7
  - Optimizing Performance 9
- **Installation Overview** 11

Chapter 2: How Resource Scheduler works 12
- **Overview** 12
- **Components working together** 13
- **Resource Scheduler Concepts** 14
  - Region 14
  - Location 14
  - Group 14
  - Resource 14
  - User Defined Fields 14
- **Interface Overview** 15
  - Tool Bar 15
  - Home Page 15
  - Options Page 15
  - Resources Page 18
  - Configurations Page 19
  - History Page 20
  - Users Page 21
  - Holidays Page 22
  - Calendars Page 23
  - Strings Page 24
  - Help Page 25

Chapter 3: Security Concepts 26
- **Overview** 26
- **Security Recommendations** 27
- **Security Types** 28
  - SSL Login Security 28

Password Security 28
Application Security 29
Authentication Method 29
User Security 30
Security Groups 30
Schedule Security 31
Resource Level Security 31
Reservation Security 31
Directory Services Integration Module 32
Active Directory and NTLM Authentication 34
LDAP Authentication 34
Installing the Directory Services Integration Module 34
Configuring the Directory Services Integration Module 35
Verifying the Directory Services Integration Module 37
LDAP Login Settings 40

Chapter 4: Configuring General Options 42

Overview 42
General Options Tab 43
Company Info Tab 46
Security Controls Tab 49
Email Settings Tab 52
Location Defaults Tab 54
Virtual Tele-Conference Settings 57

Chapter 5: Locations, Groups, Resources, and Combinations 58

Overview 58
Locations 59
Creating a Location 59
Editing a Location 61
Using the Location Admin Module 62
Configuring the Location Admin password 63
Accessing the Location Admin Module 64
Deleting a Location 66
Regions 67
Creating a Region 67
Adding a Location to a Region 67
Editing Region Information 68
Editing Location Information for a Region 68
Location Maintenance Fields 69
Location Options Page Fields 72
Groups 75
Creating a Group 75
Editing a Group 76
Deleting a Group 77
Group Maintenance Fields 78
Resources 81
Creating a Resource 81
Editing a Resource 82
Deleting a Resource 83
Resource Maintenance Fields 84
Combinations 87
Creating a Combination 87
Editing a Combination 88
Deleting a Combination 89
Combination Maintenance Fields 90

Chapter 6: Creating and Maintaining Users 92
Overview 92
The Default User 93
Configuring the Default User 93
Individual User Access 94
Enabling Individual User Access 94
User Security Settings 95
Adding Users 96
Enabling Users to add themselves 96
Adding a User Manually 97
Adding a User via LDAP 97
Editing a User 97
Deleting a User 98
Security Groups 98
Configuring the Everyone Security Group 99
Creating a Security Group 99
Security Group Page Fields 100
Adding and Removing members 100
Editing a Security Group 101
Deleting a Security Group 101
User Settings Fields 103

Chapter 7: Resource Scheduler Customization 106
Overview 106
Resource Types 107
Creating a Resource Type 107
Editing a Resource Type 108
Deleting a Resource Type 108
User Defined Field Types 109
Creating a User Defined Field Type 109
Editing a User Defined Field Type 110
Deleting a User Defined Field Type 110
User Defined Fields 110
Creating a User Defined Field 111
Editing a User Defined Field 112
Deleting a User Defined Field 112
UDF Field Types 113
Resource Characteristic Templates 115
Creating a Resource Characteristic Template 115
Associating a Resource Characteristic with a Group 116
Editing and applying a Resource Characteristic Template 117
Deleting a Resource Characteristic Template 118
Resource Setup 119
Creating a Resource Setup 119
Editing a Resource Setup 120
Deleting a Resource Setup 120
Reservation Request Tabs 121
Creating a Reservation Request Tab 122
Associating a Reservation Request Tab with a Group 123
Editing a Reservation Request Tab 124
Deleting a Reservation Request Tab 124
Quick Reserve Templates 126
Creating a Quick Reserve Template 126
Editing a Quick Reserve Template 127
Deleting a Quick Reserve Template 128
Configuring a Wait List for a Resource 129

Configuring a Pending Approval Process for a Resource 131

Chapter 8: Creating and Maintaining Holidays 2
Overview 2
Adding a Holiday 3
Editing a Holiday 4
Deleting a Holiday 4

Chapter 9: Creating and Maintaining Event Calendars 5
Overview 5
Creating an Event Calendar 7
Creating an Event Calendar with no access code 7
Creating an Event Calendar with an access code 8
Accessing an Event Calendar 9
Accessing an Event Calendar with no access code 9
Accessing an Event Calendar with an access code 9
Modifying an Event Calendar 10
Deleting an Event Calendar 10

Chapter 10: Advanced Administration Functions 12
Overview 12
Customizing the User Application Footer 13
Enabling System Generated Reminder Messages 14
Configuring Windows Task Scheduler 14
Configure Email Reminders in Resource Scheduler Admin 16
Performing SQL Queries 17
Useful SQL Queries 17
Resource Scheduler Maintenance 18
Performing a Database Backup 18
Performing a Web Application Backup 18
Purging Historical Records 20
Importing Users 22
Importing Reservations 24
Customizing HTML Tags for UDFs 26
Display an Image 26
Add an Email Link 26
Add a Hyperlink 26
Open Link in a New Browser 27
Open Link in a New Browser with a Display Image 27
Customizing Color Category Text 28

Appendix A: Forms and Checklists 31
Collecting Location Information 32
Collecting Group Information 33
Collecting Resource Information 34

Appendix B: Stored Procedures 1
Example 1
Example 3
Example 4
Example 5
Example 5
Example 6
Example 7

Appendix B: Troubleshooting Resource Scheduler Admin 1

Preface

This chapter contains basic information about Resource Scheduler, PeopleCube, and how to use this book.

Topics include:

- Resource Scheduler Components
- Technical Support
- Documentation Conventions
- About this Book

Resource Scheduler Components

Resource Scheduler is the all-in-one solution for scheduling and managing shared corporate resources such as conference rooms, laptops, whiteboards, A/V equipment, studios, cars, etc.

There are three editions of Resource Scheduler: Standard, Professional, and Enterprise. There is a Resource Scheduler solution sure to fit the requirements of your facility and the facilities of your clients.

The Standard Edition offers all the features to make basic resource scheduling easy. The Professional Edition adds additional useful features, such as email integration and individual user access. The Enterprise Edition provides the ultimate solution including such features as customizable user personalization, integration with Outlook® and PIM devices, and sophisticated reporting tools for enhanced resource and asset management control. For more detailed information of the features for each edition, please see the section "What Resource Scheduler Can Do For You" on page 2.

Resource Scheduler Modules

You can enhance your Resource Scheduler Enterprise Edition environment with the following modules:

- **Service Requests Module**
  Formerly known as the Catering Scheduler Module for Resource Scheduler, the new Service Requests is has been enhanced to not only provide the ability to schedule meals along with your functions, but also to schedule services with your functions.
- **Web Requests Module**
  The Web Requests Module for Resource Scheduler allows users to submit resource requests within a flexible set of time guidelines. All requests are directed to users with approver status who can then either approve or deny requests.
- **Directory Services Integration Module**
  The Directory Services Integration Module for Resource Scheduler enables the integration of LDAP and NTLM authentication methods for a more secure experience.
- **Resource Scheduler for Microsoft® Outlook®/Exchange®**
  The Resource Scheduler for Outlook/Exchange module enhances resource scheduling within Microsoft Exchange. The application provides Outlook users with search capabilities to find and book available resources in real time via an Outlook tab.

Other Products from PeopleCube

- **Meeting Maker Millennium**
  The collaborative scheduling and time management software helping over 1.5 million busy people around the world to get the right people to the right place at the right time.
- **Meeting Maker HTML Calendar**
  You can use HTML Calendar to view and work with Meeting Maker accounts from any machine with a web browser. HTML Calendar comes with the basic Meeting Maker product, but requires a separate installation and has separate documentation.
- **Arrival/Scheduling Web Services Toolkit**
  Software and Web developers can use Arrival, the Meeting Maker Scheduling Web Services Toolkit, to integrate Meeting Maker's powerful time management engine into your portal, intranet, or other applications.
- **Meeting Maker Mobile™ Powered by Intellisync™**
  Meeting Maker Mobile™ Powered by Intellisync™ is the ideal solution for people on the go who need instant wireless access to their calendar and email. Compatible with a variety of mobile devices and carrier independent, Meeting Maker Mobile Powered by Intellisync ensures that you will always be up to date and up to speed.

- **The Meeting Maker Admin API/CLI**
  You can use the Meeting Maker Admin API/CLI to automate administrative tasks in your Meeting Maker environment using customized scripting.
- **The Meeting Maker LDAP Gateway**
  You can use the Meeting Maker LDAP Gateway to integrate and synchronize with an LDAP directory service for easy, centralized user and resource account management.

Technical Support

If you subscribe to the Maintenance Advantage Program, you can access PeopleCube technical support.

If you need technical support, follow these steps:

- Log in to the PeopleCube Support Center at: `http://connect.PeopleCube.com/support`.
- Check the Support News - Hot Topics section for the latest technical announcements and information.
- Check the PeopleCube Knowledge Base to see if there is an existing tech note on your issue.
- If you still need help, click **Create New Case** on the main support center page to submit a case to the technical support team.
- You can also call PeopleCube Technical Support at 800-282-7319 or 781-530-2603 Monday through Friday from 9 AM to 7 PM Eastern Standard Time. In Europe, call +41 41 785 10 65.

The PeopleCube Support Center

As a Maintenance Advantage customer, you have access to a personalized PeopleCube Support Center account that provides a central location for all product support features.

You can log in to the PeopleCube Support Center at:
`http://connect.PeopleCube.com/support`

For both administrators and end users, the Customer Support Center lets you submit and track:

- Technical support tickets
- Product enhancement requests
- Product bugs

With the PeopleCube Support Center, you also have access to:

- The searchable Tech Note Knowledgebase
- Product downloads
- Product documentation
- Support News - Hot topics

Professional Services

The PeopleCube Professional Services team stands ready to accommodate customers of any size with installation, upgrade, migration, and custom development services. Professional services include:

- New enterprise customer deployment
- Pre-rollout planning and testing
- On-site upgrades and migrations with live data
- Migration services from other products
- Web services custom integration and development

To learn more about available professional services, visit `http://www.PeopleCube.com/services` or call 781-530-2600.

PeopleCube Training Services

PeopleCube offers a variety of training services for administrators and end users, available online or in person. Training types include:

- Online instructor-led training
- Instructor-led classes at the PeopleCube Training Center
- Custom training at your site

To learn more about available training, visit: `http://www.PeopleCube.com/training` or call 781-530-2600.

Documentation Conventions

This book uses the following documentation conventions:

Convention	Explanation
Italics	Indicate a document title. Also used in some headings.
Bold	Indicates a definition term or an item you must act upon, such as a button you must click.
`Fixed width font`	Indicates a file name, file path, URL, code or text string, or text you must enter.
>	Indicates a series of selections on cascading menus. For example, from the top menu bar, choose **File > New > Folder**.
<>	Indicates a variable in a code or text string.
NOTE:	Presents brief, additional information related to the current topic. A note can also be used as a reminder or clarification.
WARNING:	Indicates a procedure that must be followed carefully or an event that can possibly cause loss of data.

About This Book

This book is intended for Resource Schedule administrators. It assumes strong computer skills and a basic knowledge of management of Microsoft Server, Microsoft IIS, and SQL Server.

This book contains information on the administration of Resource Scheduler. It does not contain installation instructions for Resource Scheduler. Please see the *Resource Scheduler Installation Guide* for installation instructions.

This book also does not contain installation or configuration information for any non-Resource Scheduler products, such as Sun's Java Runtime Environment, Microsoft Data Access Components (MDAC), Microsoft Server, Microsoft IIS, or SQL Server. Those applications have their own documentation containing separate installation and configuration instructions.

Chapter 1: Planning Your Resource Scheduler Environment

This chapter contains information you need when you plan your Resource Scheduler environment. It includes system requirements, system planning, and optimization recommendations.

Topics include:

- Overview
- What Resource Scheduler Can Do For You
- System Requirements
- Planning Your Resource Scheduler Environment
- System Planning Recommendations
- Optimizing Performance
- Installation

Overview

Resource Scheduler is a web-based application for scheduling and managing shared resources. Before you install and configure Resource Scheduler in your environment, you should understand how Resource Scheduler works and plan the best system for your needs.

What Resource Scheduler Can Do For You

Resource Scheduler is flexible enough to meet the needs of any size organization. Designed with business requirements in mind, its multiple calendar and resource views make tracking and controlling resource schedules simple! Resource Scheduler has many options that can be configured and changed to fit your organizational requirements. The chart below can help determine which edition of Resource Scheduler best fits your needs:

Features	Benefits
Admin. Password Control	Administration feature allows passwords to be overridden
Attachments	Document attachments for file sharing
Automated Assistance	User-friendly features such as mouse-over tips and popup information
Availability Search	Search for available resources that match your criteria requirements
Color Legend in Schedule View	Display the event type for each reservation or booking by designated color codes
Configurable UDFs	User defined fields to customize resources and bookings
Find Scheduled Reservation	Search for reservations you have made
"Go To Today"	"Go To Today" button enables users to easily navigate to the current date from within the schedule view
Links	User defined area for intranet links
Multiple Location Support	Number of locations supported (for geographic or departmental distinctions)
Multiple Views	User friendly views to print and post by resource
Multi-Resource Reservations	Reserve multiple resources simultaneously (i.e. conference room and A/V equipment)
Print Reservation Confirmation	Print reservation confirmation notices and distribute accordingly
Quick Edit	Easily modify resources and change resource location
Quick Start	Quick setup with predefined templates
Recurring Reservations	Make reservations on a one-time, daily, weekly or monthly basis
Reservation Reassignment	Easily reassign reservations to another resource

Schedule Granularity	View resource schedules by day, week or month
User Based Logins	Designate users who can access the system and reserve/manage resources
User Security	Establish administration privileges and create view-only users
Detailed Location Information	Location time zone, weather, map/directions and floor plan support
Email Integration	Email your resource reservations to others
Group Security	Establish user privileges by group such as department or location
Holidays	Holidays displayed on schedule views
Multi-Language Support	Available in English, French and German
Multiple Locations	Arrange resources by separate locations
Quick Reserve Templates	Option to set default values to make Quick Reserve even faster
Reminders	Provides automated reminder of your reservation
Reports	Generate resource utilization, bill back and other customized reports
Reservation Wizard	Quick reserve system for the scheduling of popular resources
Schedule Colors	Designate colors for specific types of resources or reservations
Service Tabs	Setup tabs to quickly book services such as A/V or catering
User Dept./Account Info	Identifies users within authorized account
vCal Support	Integration with Outlook, PalmPilot and other PIMs via vCal standard
Workflow (Req. Approval)	Requires reservation requests to go through administrator for approval or denial
Admin. By Location	Provides admin. access on a per-location basis
Event Calendar	Include event-specific information in resource calendar and publish to wider audience
Event Scheduling	Group and search for reservations by event type and modify resources required for a particular event
Favorites	Favorite resources, recent reservations list and assignments lists available
Personalization	Enables you to set your preferences for a customized experience
Resource Level Security	Modify security settings to enable an

	individual or group of individuals to have administrative rights over a particular resource
Resource Viewing Restrictions	Limit specific users to view a single resource - useful if people are used as resources
Room Setup Options	Specify room setup preference (classroom style, round table format, etc.)
Special UDFs	Offers ODBC and SQL connection to validate data against an external table and interact with external data
Virtual Tele-conference	Enables users to reserve resource types related to virtual tele-conferences
Wait Listing	Request resource that has already been reserved and receive notification of availability

Optional Modules for Resource Scheduler – Enterprise Version
Resource Scheduler for Outlook/Exchange Seamlessly integrates Resource Scheduler into the Outlook calendaring environment
Service Requests Request catering services (select menu items, delivery times, designate account billing, etc.)
Directory Services Integration Integrates Resource Scheduler with LDAP, Active Directory or NTLM authentication
Report Writer's Toolkit Provides the necessary information write detailed customized reports
Web Requests Enable users outside of your network to request resources

System Requirements

Resource Scheduler can be hosted on Windows 2000 Server or Windows 2003 Server running Microsoft Internet Information Server (IIS) Version 4.0 or greater. The application may be installed with a royalty free, SQL Server compatible database. Organizations expecting large numbers of concurrent users may wish to use SQL Server for more robust performance.

Server Requirements

The server hosting Resource Scheduler requires the following hardware and software for a minimal installation.

Requirements for your Resource Scheduler server vary depending on the expected size of your database, number of users, degree of traffic, and other factors. In many cases, a minimum installation may not support your database traffic. For more information on optimizing your system performance, see the section “Optimizing Performance” in this guide.

Hardware / Software	Requirements
Operating System	Microsoft Windows 2000 Server/Advanced Server, or Windows 2003 Server (NTFS and long file name support enabled.)
Processor	550 MHz or higher
Network	▪ TCP/IP ▪ Static IP address ▪ (Optional) Registered Domain Name
Web Server	Microsoft Internet Information Services (IIS) 5.0 or higher
Scripting Engine	Microsoft Scripting Engine 5.1 or greater (5.5 recommended)
RAM	256 megabytes (MB) of RAM for the operating system and services, plus an additional 32 MB of RAM for each 10 concurrent users
Disk	150 MB of available disk space (application only - see data requirements below)
SMTP	(Optional) SMTP mail server for email integration
Other	▪ Microsoft Data Access Components (MDAC) 2.8 or higher ▪ Sun's Java Runtime Environment (JRE) 1.3.x. Note that problems with Sun's Java Runtime Environment (JRE) 1.4.x will cause Crystal Reports functionality to fail.

Application Data

In addition to the Resource Scheduler server requirements, the application data for Resource Scheduler requires the following for a minimal installation. Resource Scheduler installs a SQL Server compatible database.

Hardware / Software	Requirements
SQL Server	Microsoft SQL Server Desktop Engine (MSDE) 1.0, 2000 or higher, or (Optional) SQL Server 2000 (Service Pack 3 or higher).
Disk	50 MB of available disk space, plus an additional 10 MB per 50 resources.

Data for the application can be installed on the same machine as the web application or on separate SQL Server machine.

Client Requirements

The user accessing Resource Scheduler requires the following hardware and software for a minimal installation.

Hardware / Software	Requirements
Browser	♦ HTML 5.0 compatible web browser. For optimal viewing and performance, Internet Explorer version 5.5 or higher is recommended, or Netscape version 7 is recommended. Note: *Internet Explorer 4 and Netscape 4 are no longer supported.* ♦ JavaScript enabled ♦ Cookies enabled ♦ 1024 x 768 or greater display size recommended
Connectivity	♦ Available connection (via network, Intranet, Internet or dial-up) to server running the web application
Extensibility	♦ iCalendar enabled PIM (i.e. Outlook, Palm) for personal calendar access

Planning Your Resource Scheduler Environment

You can use the following recommendations and guidelines to help ensure optimal performance in your Resource Scheduler environment.

System Planning Recommendations

These recommendations are provided as a reference for the implementation of Resource Scheduler.

Depending on how you intend to use the product, portions of this guide may or may not be appropriate. For large organizations, it is recommended to assemble a meeting of the individuals responsible for managing and scheduling the resources you intend to track with Resource Scheduler. Make sure you have an edition of Resource Scheduler that fits your needs.

Before installing Resource Scheduler, it is important that you identify all formal and informal scheduling processes and procedures within your organization. You should identify who will be allowed to schedule resources, which resources may have restricted access, and which resources require an approval process. Implementing Resource Scheduler is easier for organizations with well defined processes and procedures.

Consider the following before implementing Resource Scheduler:

- Determine who will administer Resource Scheduler.
  You may choose to allow all users of Resource Scheduler to perform administration functions or allow only one person.
- Determine who will update resource schedules.
  You may choose to allow all users of Resource Scheduler to update resource schedules, or allow only a few staff members responsible to perform reservations.
- Identify all locations that will be tracked with Resource Scheduler.
  Locations are often considered a geographical location. Some organizations host offices in a campus-like environment where it might make more sense to setup a location as a specific building.
- Identify logical groupings of resources.
  These will become the Resource Groups. You may wish to create groups based on how you will be searching for available times to reserve. For example, if only a few of your 30 conference rooms are suitable for

external sales presentations, you may wish to create a group called "Demo Rooms", separate from a general "Conference Rooms" group. This will allow for more precise searching for an available resource.

- Identify all resources to be scheduled using Resource Scheduler.
  When the resources are identified, it is sometimes easier to create groups based on the resources.
- Identify the contact person for each resource.
  This information will be visible in the detailed resource information. This is often an email address, but it can also be a name, phone extension, or other information.
- Identify the capacity for each of the resources, if applicable.
  You may use the capacity function of Resource Scheduler to enter room capacity or search for an available room by capacity.
- Identify common characteristics for locations, groups, and resources.
  Common characteristics for conference rooms are telephone extension and style of white board. Common characteristics for cars may be automatic or manual transmission or cost per day. Common characteristics for laptops may be CD Burner, DVD Burner, RAM, Hard drive, CPU, Serial Number, etc. Defining these characteristics help users to determine which resources fit their needs and may help to better prepare them for the event and provides useful forms to help you identify important characteristics of your locations, groups, and resources.
- Identify optional information to capture during resource reservations.
  A common example would be services required for a conference room, such as audio/visual services or housekeeping. This can be set at both the group level and the individual resource.
- Identify the time format for Resource Scheduler.
  Two formats are available: a 24 hour schedule or a schedule in which a start time and end time are set. Each location can be set to its own time format. Both formats allow the granularity of the schedule to be displayed in blocks of 5, 10, 15, 20, 30, or 60 minutes.
- Determine the authentication method to access Resource Scheduler.
  Several methods are available in the Enterprise Edition to authenticate users without manually creating user accounts. The Directory Services Integration Module for the Enterprise Edition includes NTLM, LDAP, and IIS. Each authentication method has it owns benefits and advantages that should be considered before implementation. For more information on security, please consult the section "Security Concepts" in this guide.
- Determine your deployment strategy.
  Rollout plans vary, but Resource Scheduler is simple enough to use with little or no training. Consider limiting the initial rollout to a few users to allow Resource Scheduler administrators to respond to feedback and identify any critical issues.

- Review all documentation.
  Review all documentation about any add-on module you will be implementing and collect any information that may be necessary before installing and configuring Resource Scheduler.

Optimizing Performance

The recommendations below are for optimal performance in a wide variety of environments. The setup that works best for your environment will vary depending on details such as the number of users in your environment, network traffic levels in your environment, the specifications of the machines hosting your server, how heavily your users use Resource Scheduler, and other factors. Resource Scheduler will run if it meets the minimum system requirements.

- **SQL Server**
  For a more robust performance, you may wish to host the SQL server compatible application on a separate, dedicated machine. Although Microsoft SQL Server Desktop Engine may be installed, you may wish to install SQL Server.
- **Hard Disk space**
  Your Resource Scheduler database size increases as users schedule resources and add information. The amount of disk space you should reserve for the database depends on how heavily your users use Resource Scheduler.

  You should allocate at least 10 MB per 50 resources. More space should be allocated if you anticipate heavy Resource Scheduler usage.
- **RAM**
  128 megabytes (MB) of RAM is typically the minimum for the operating system and services. Check your operating system documentation for optimizing RAM. Resource Scheduler requires a minimum of 32 MB of additional RAM for each 10 concurrent users. If you anticipate 40 concurrent users, a total of 128 MB of additional RAM would be the minimum.
- **Network Bandwidth**
  You should ensure that you have enough bandwidth to accommodate your network traffic. High network traffic can impact Resource Scheduler's performance.
- **Web Server Tuning**
  The response time for accessing web pages can be increased with web server tuning. You may wish to review documentation about web server tuning available on the Internet.

- **Static IP address or DNS name**
  Make sure that any machine hosting the web server for Resource Scheduler has a static IP address or DNS name.
- **Maintenance**
  Schedule maintenance of your SQL server machine, database, and web server machine at regular intervals to maintain data integrity.
- **Backups**
  Schedule backups of your Resource Scheduler installation and database at regular intervals.

You may find additional information on optimization and system planning in the PeopleCube Support knowledge base at:
`http://connect.PeopleCube.com/support`

Installation Overview

The following is a brief overview of the installation process. For more detailed information about installing or upgrading Resource Scheduler, please consult the *Resource Scheduler Installation Guide*.

1. Configure Windows Server.
   Ensure that your Windows server meets all of the hardware and software requirements.
2. Configure IIS.
   Ensure that your IIS Web server permits access to Resource Scheduler.
3. (optional) Install Microsoft Scripting Engine.
   You can install the latest Microsoft Scripting Engine prior to installing Resource Scheduler, if desired. The Resource Scheduler Installation will install a version of Microsoft Scripting Engine if one is not detected during installation.
4. (optional) Install MSDE or SQL Server.
   You can install the latest MSDE or SQL Server prior to installing Resource Scheduler, if desired. The Resource Scheduler Installation will install a version of MSDE if one is not detected during a Quick Install or during a Custom Installation with the application database included.
5. Install the Resource Scheduler web application and database.
   You can install the Resource Scheduler web application and database on the same machine. You can also choose to install the Resource Scheduler web application on a dedicated Web server machine and the Resource Scheduler database on a dedicated SQL Server machine.
6. Verify your Resource Scheduler installation.
   You should verify that your Resource Scheduler installation is functioning properly. For more information, please refer to the "Verifying Resource Scheduler Installation" in the Installation Guide.
7. Configure your regions, locations, groups, resources, and then, if applicable, users.
8. Configure User Defined Fields (UDFs), Resource Characteristic Templates, Reservation Request Tabs, etc.
9. Begin using Resource Scheduler.

Chapter 2: How Resource Scheduler works

This chapter contains concepts and information you need to understand how Resource Scheduler works. It contains an overview of components working together, Resource Scheduler concepts, and an introduction to the administrator interface.

Topics include:

- Overview
- Components working together
- Resource Scheduler Concepts: Locations, Groups, Resources
- Interface Overview

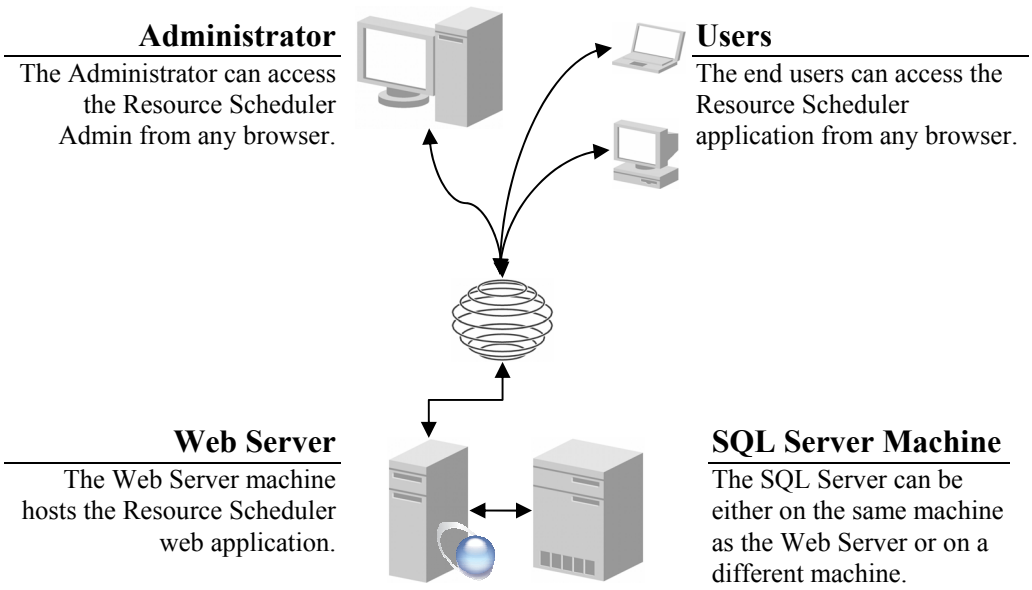
Overview

A Resource Scheduler environment consists of the Resource Scheduler web application, the Resource Scheduler database, a web server, and a SQL Server. It can also include any of the add-on modules for the Enterprise Edition.

- The Resource Scheduler web application runs on the same machine as the web server and provides an interface to manage and reserve resources.
- The Resource Scheduler add-on modules are installed on the same machine as the Resource Scheduler web application to further enhance your environment.
- The Resource Scheduler database is installed on the same machine as the SQL server. The SQL Server can either be Microsoft Data Engine (MSDE) or another SQL-compatible server.

Components working together

A Resource Scheduler installation consists of three main components: a web server, the Resource Scheduler web application, and a SQL Server-compatible data engine.


Administrator
The Administrator can access the Resource Scheduler Admin from any browser.
Users
The end users can access the Resource Scheduler application from any browser.
Web Server
The Web Server machine hosts the Resource Scheduler web application.
SQL Server Machine
The SQL Server can be either on the same machine as the Web Server or on a different machine.

During installation, Resource Scheduler creates virtual directories in the web server. At minimum, Resource Scheduler creates two virtual directories: `RSAdmin` and `ResourceScheduler`. The `ResourceScheduler` directory allows your end users to access Resource Scheduler. The `RSAdmin` directory allows you to access the administrative functions.

The Professional and Enterprise Editions of Resource Scheduler may create additional virtual directories, such as `RSAdminLoc`, `RSEvents`, and `Viewer`. `RSAdminLoc` allows access for Location Administrators to configure their location. `RSEvents` allows you to access event calendars. `Viewer` allows your end users to use Crystal Reports if you have installed the Crystal Reports components.

Resource Scheduler Concepts

Resource Scheduler excels at scheduling multiple resources. To keep resources organized, Resource Scheduler presents the concepts of Regions, Locations, Groups and Resources. You can define characteristics about groups and resources with User Defined Fields.

Region

A region is a collection of groups and resources, and is often a geographical region, such as a country or a state.

Location

A location is a collection of groups, and is often a geographical location, such as a building.

Group

A group is a collection of any number of resources. The purpose of a group is to organize similar resources in a logical manner, such as several conference rooms.

Resource

A resource is an individual item, such as a vehicle, a projector, a conference room, or a VCR.

User Defined Fields

User Defined Fields, or UDFs, are characteristics of resources within a group. UDF Types help to classify the user defined fields that you create. An icon can be associated with each UDF Type.

For example, for a group of conference rooms, you can define a UDF such as "Network Drop Available?", "Size of White Board?", and "Capacity". When you create each resource for a group, you can specify these characteristics. This allows Resource Scheduler users to see at a glance which room might best fit their needs.

It is recommended that you experiment either on paper or in the web application with different structures to see what best fits your organizational needs.

Interface Overview

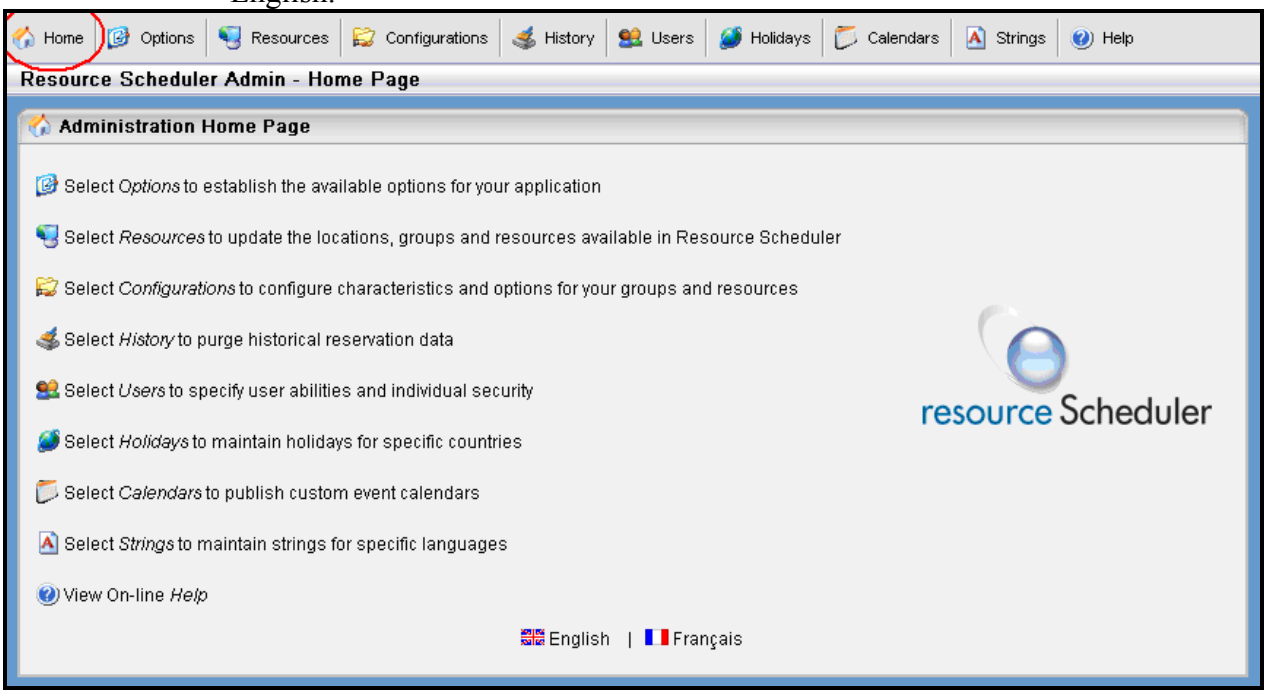
This section contains an overview of the main pages within the Resource Scheduler Administration interface.

Tool Bar

The Tool Bar provides a list of links to options to configure. The Tool Bar appears on every page in Resource Scheduler Admin and is the main method for navigation.

Home Page

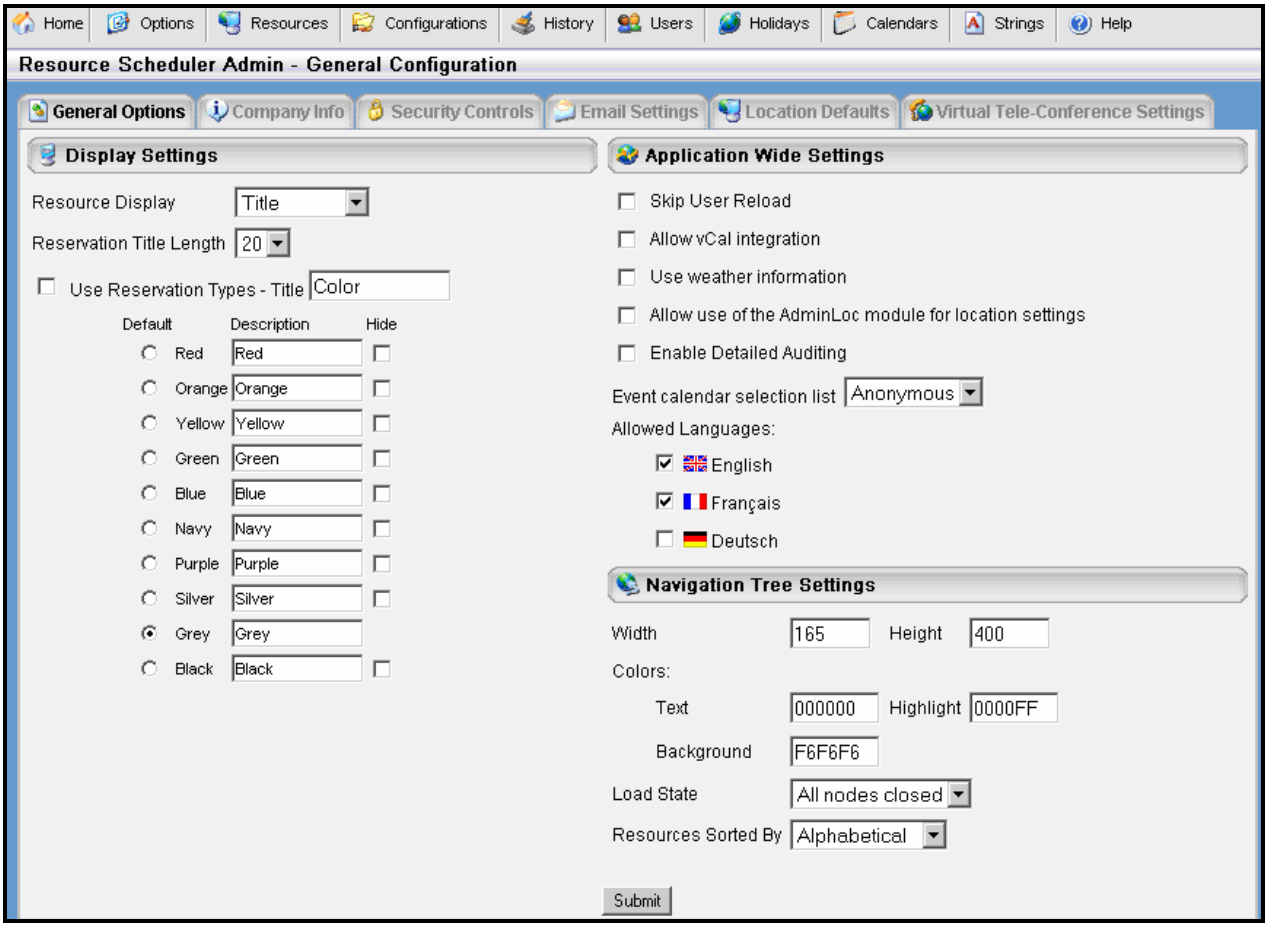
The Home Page is the default start page that appears when you connect to Resource Scheduler Admin. The Home Page includes links to various areas in the web application, which are duplicates of the options available on the tool bar. The Home Page is also where you can change the language of the Admin interface in the Enterprise edition. You can switch between French and English.


Home
Options
Resources
Configurations
History
Users
Holidays
Calendars
Strings
Help
Resource Scheduler Admin - Home Page
Administration Home Page
Select Options to establish the available options for your application
Select Resources to update the locations, groups and resources available in Resource Scheduler
Select Configurations to configure characteristics and options for your groups and resources
Select History to purge historical reservation data
Select Users to specify user abilities and individual security
Select Holidays to maintain holidays for specific countries
Select Calendars to publish custom event calendars
Select Strings to maintain strings for specific languages
View On-line Help
English | Français
resource Scheduler

Options Page

The Options page is where you configure the appearance and functional behavior of Resource Scheduler. Several tabs are available to allow an administrator the ability to set the functional and cosmetic aspects of the web

application. General security settings, external system interaction and default location settings are also controlled in the Options page.



General Options Tab
The General Options tab contains various display, application-wide, and navigation tree settings.

Company Info Tab
The Company Information tab contains company information, license information, and some server configuration information. Most of this information is populated during installation and should not require modification. Improper values can cause the application to stop working.

Security Controls Tab
The Security Controls tab configures application, user, and schedule security. For the Professional and Enterprise Editions, this page also allows you to define the authentication method for login. The authentication method for Standard Edition is configured for "Scheduler only". Security is discussed in more detail in the "Security Concepts" chapter.

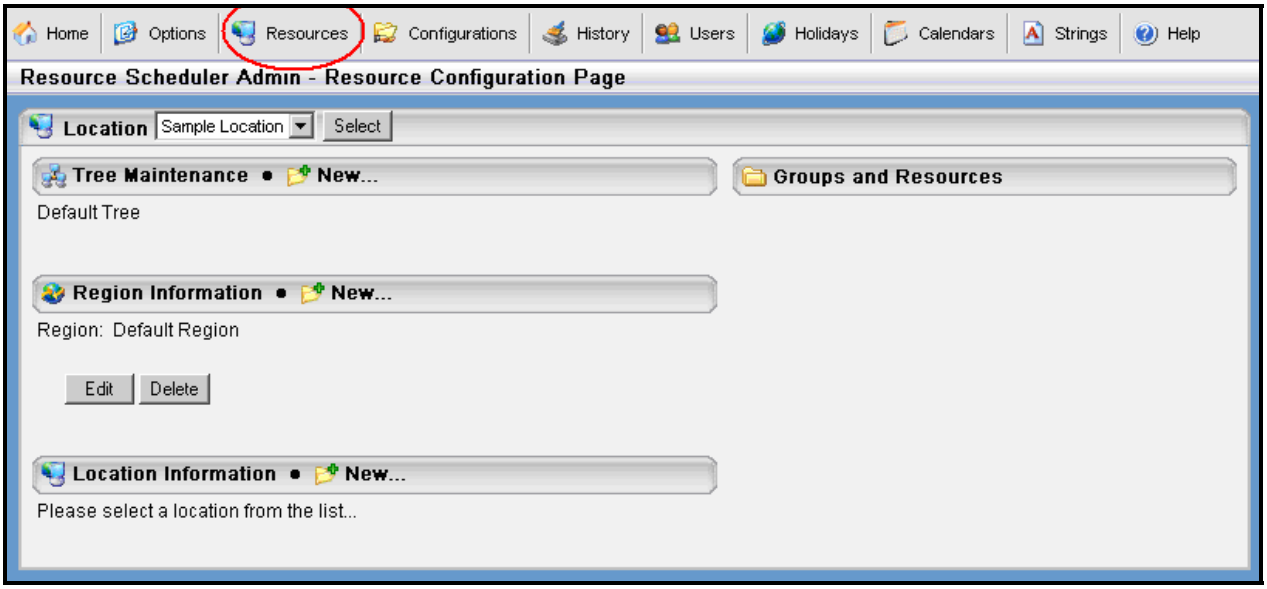
Email Settings Tab
The Email Settings tab configures the various options for email integration.

Location Defaults Tab
The Location Defaults tab sets parameters that will be applied to every location when it is initially created or to all existing locations. After a location has been created, you can override the default location configuration options for that location. For more information on creating and modifying a location, please consult Chapter 5, "Locations, Groups, Resources, and Combinations".

Virtual Tele-Conference Settings Tab
The Virtual Tele-Conference Settings tab configures the various options for Tele-Conferencing scheduling.

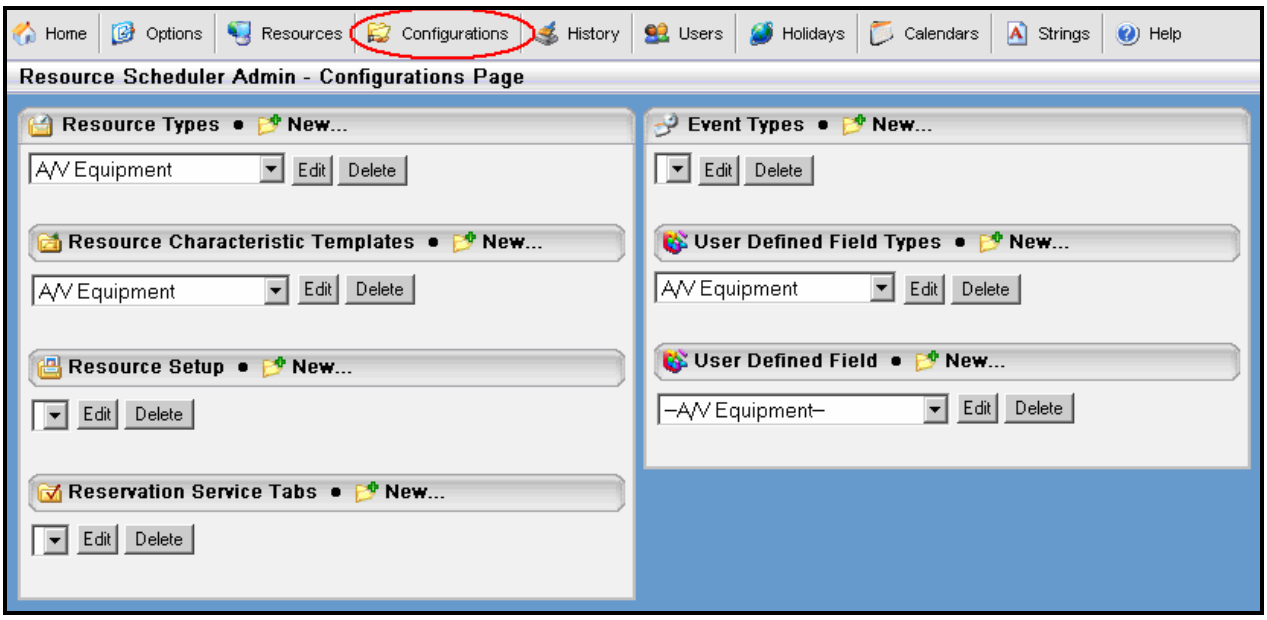
Resources Page

The Resources Page allows you to add or modify locations, as well as groups and individual resources within the location.For more information on creating and modifying a location, please consult Chapter 5, “Locations, Groups, Resources, and Combinations”.



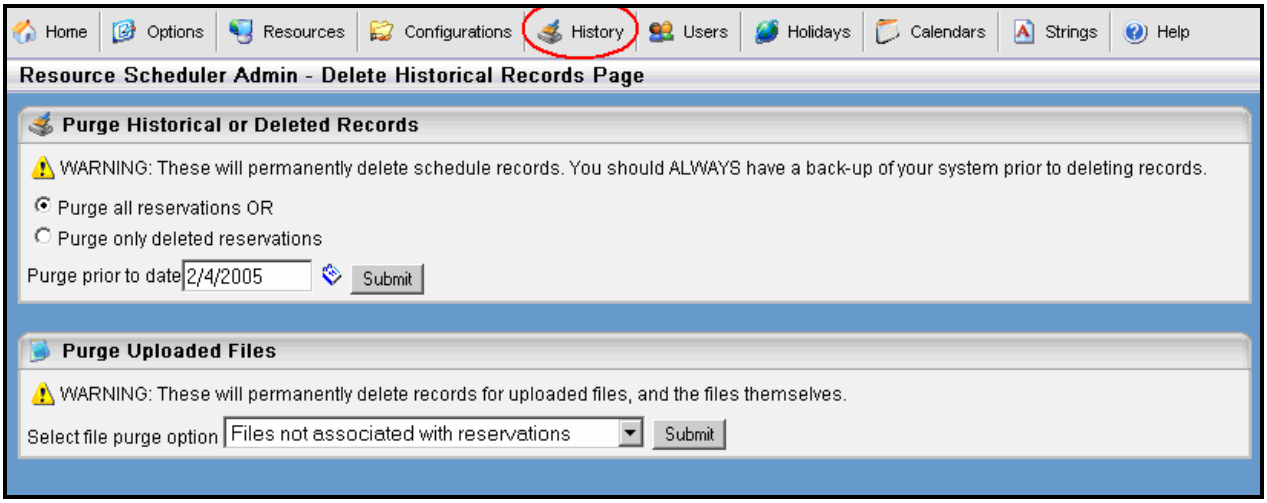
Configurations Page

The Configurations Page allows you to add and configure Resource Types, Resource Templates, Reservation Request Tabs, as well as add and configure User Defined Fields (UDFs) and UDF Types. For more information, please consult the chapter "Resource Scheduler Customization".



History Page

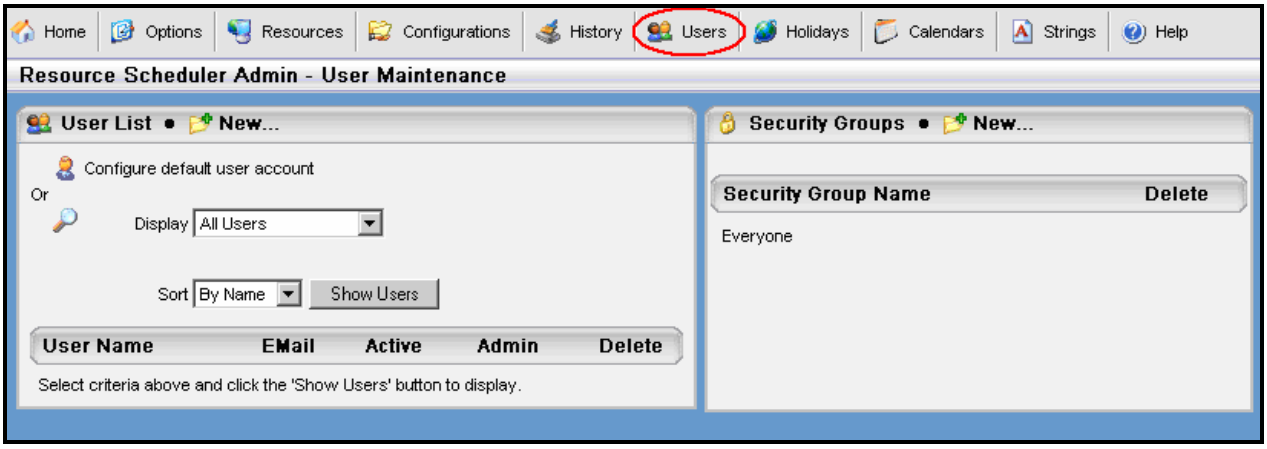
The History Page allows you to purge historical or deleted records from the database. For more information, please consult the section "Resource Scheduler Maintenance" on page 18.



Backup your Resource Scheduler database and web application files before purging any information.

Users Page

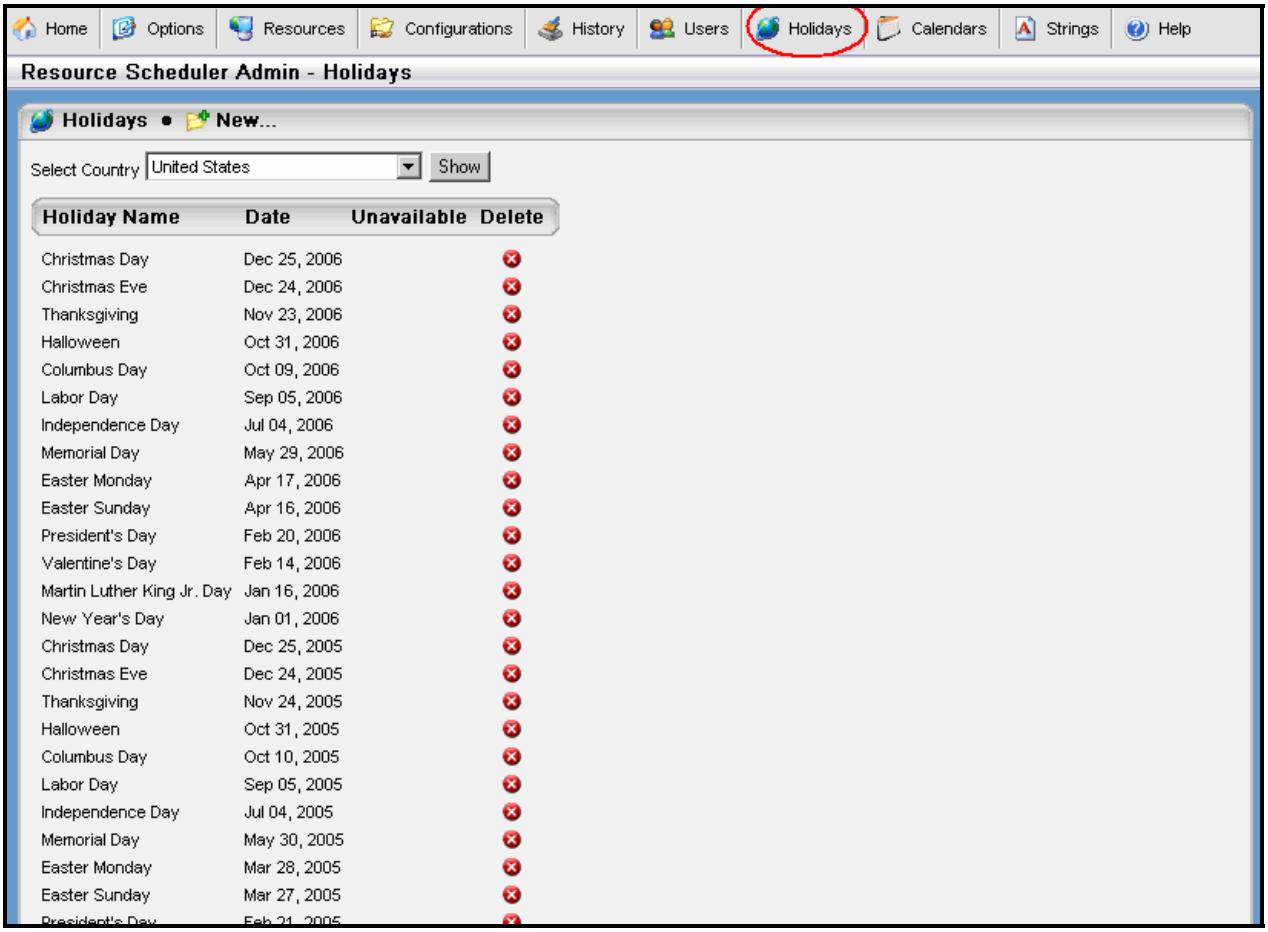
The Users Page allows you to define, modify, and view users. In the Enterprise Edition, this page also allows you to define certain security settings for existing groups. For more information on creating users, please see the chapter "Creating and Maintaining Users".



Holidays Page

(Enterprise Edition Only)

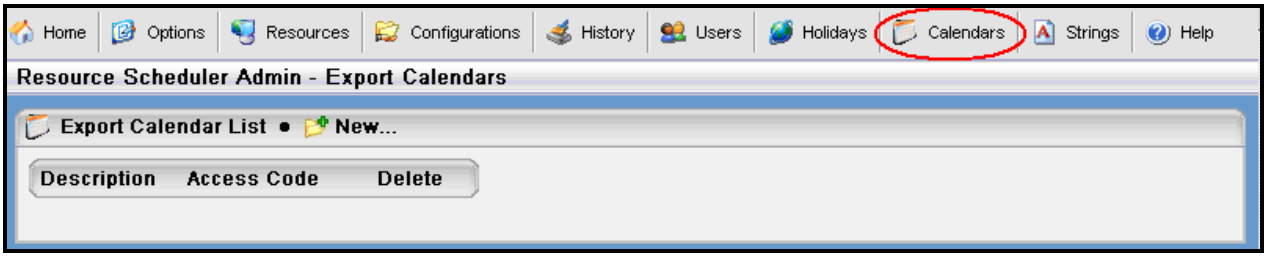
The Holidays Page allows you to define holidays for each country listed. You can allow or block reservations from being created on a day marked as a holiday.



Calendars Page

(Enterprise Edition Only)

The Calendars Page allows you to publish a read-only schedule of reservations associated with a specific calendar to an events calendar.



This is useful for publishing events for calendars to the public without allowing the public to change these events. For example, you created a recurring reservation for a class in a training room "Room 1A" from 8AM-Noon, Monday through Friday. The title of the reservation for the class is "ERP 101". You can publish the reservation on a calendar called "Public Classes".

For more information on exporting calendars, please see the section “Creating and Maintaining Event Calendars” on page 5.

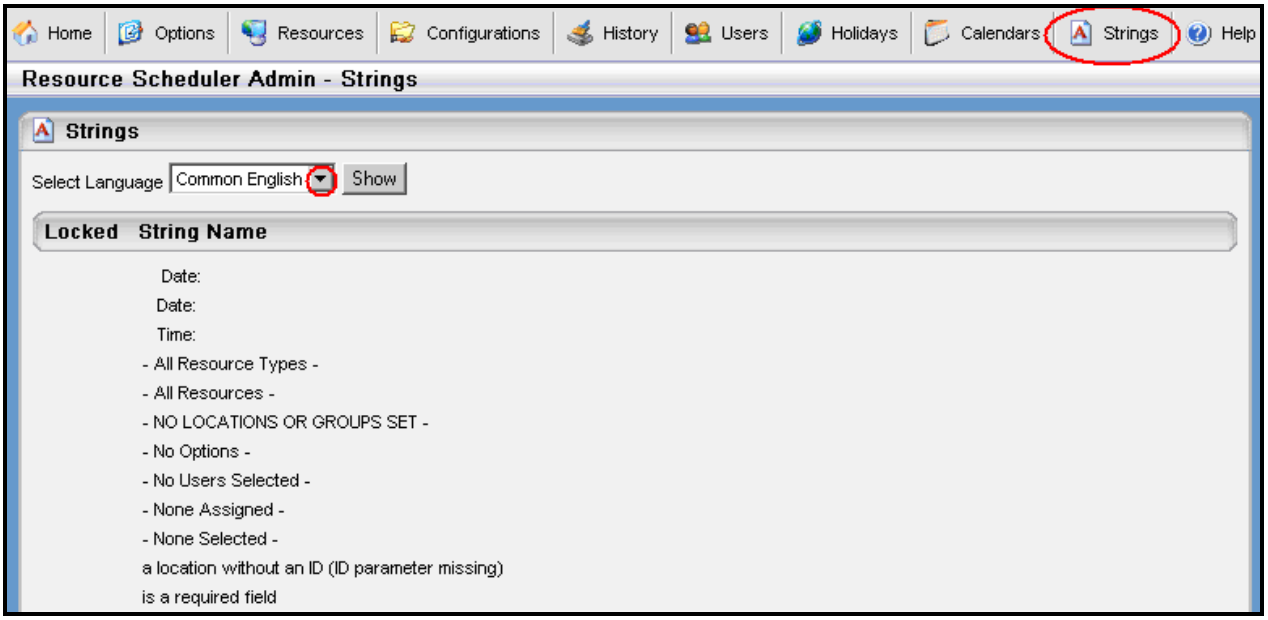
Strings Page

The Strings Page allows you to customize the wording in your Resource Scheduler interface.

❖ **To customize a string:**

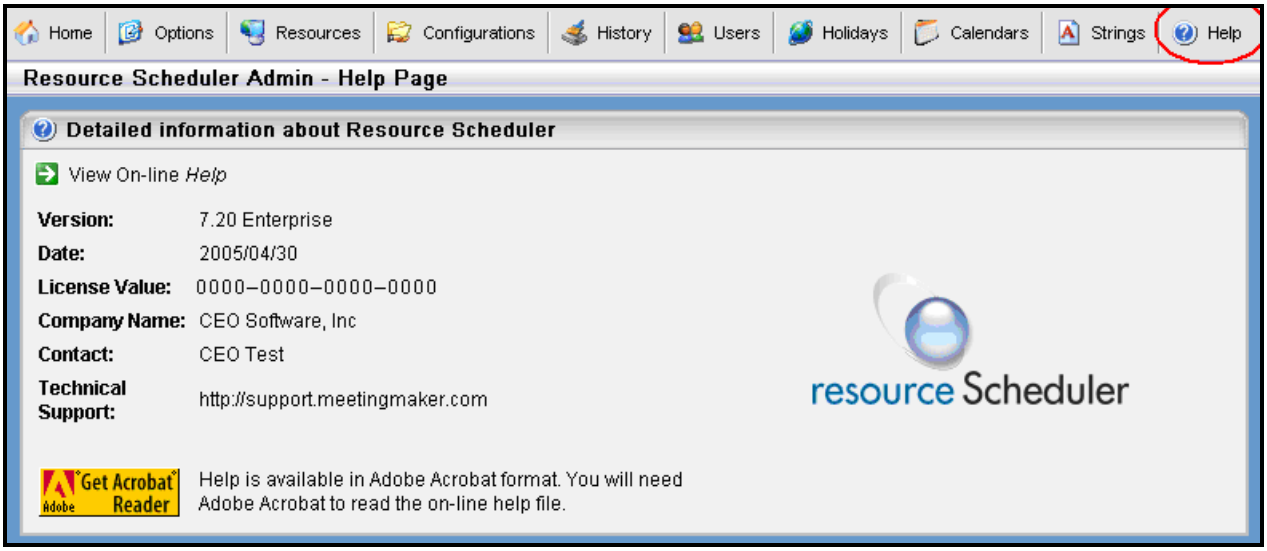
1. In the Resource Scheduler Admin home page, click on the **Strings** link.
2. Click the **Select Language** drop-down to select the language you want to update.
3. Click on the string you want to update.
   The String Maintenance page appears.
4. When you have completed updating a string, click the Submit button.

Do not use the enter key in any string. To create a line break, use <br>.



Help Page

The Help Page allows you to access the online help available in PDF format. To access the online help in PDF format, click on the link **View On-line Help** on the Help Page.



Chapter 3: Security Concepts

This chapter contains information about configuring security for Resource Scheduler. This chapter does not include specific information about security for Microsoft Windows, IIS, NTLM, LDAP, or SQL Server. These technologies have their own documentation that includes information on security specific to that application.

Topics include:

- Overview
- Security Recommendations
- Security Types
- Directory Services Integration Module

Overview

Security is a concern to everyone. Before you allow your end users to access Resource Scheduler, you should review all network security policies and procedures to ensure that Resource Scheduler has been implemented to meet your company's security specifications.

After changes are made in the administrative settings, end users must close then restart their browser for the changes to appear. All browser windows must be closed in order to clear out the old pages, including browser windows not running Resource Scheduler.

Security Recommendations

As Resource Scheduler is a web-based application, there are many ways to enhance security for web-based applications on the web server and within the application.

Resource Scheduler has several security features built in to all editions, including forcing SSL Login and disabling the use of cookies. The Directory Services Integration Module further extends the security features available. For more information about the Directory Services Integration Module, please consult the Directory Services Integration Module section in this document.

These recommendations are general recommendations. You may wish to implement policies and procedures beyond the Resource Scheduler application.

- Review security procedures for web applications.
  Review security procedures for web applications to ensure that Resource Scheduler will be integrated accordingly.
- Review security procedures with users.
  Users who use Resource Scheduler on publicly accessible computers should close all browser windows after they logout.
- Implement an approval process for critical resources.
  Implementing an approval process can reduce undesired users from creating reservations in the Enterprise Edition.
- Configure primary contact for each resource.
  A primary contact can be notified when a reservation is created, modified, or deleted.
- Password-protect critical resources.
  Password-protect critical resources so that only those with the password can make reservations with that resource.
- Password-protect reservations.
  Password-protect reservations so that only those with the password can modify reservations.
- Implement Security Groups.
  Configure security groups to enable or restrict access to groups of resources in the Enterprise Edition.

Security Types

Many of the security options within Resource Scheduler Admin are contained in the Security Controls Tab in the Options Page.

SSL Login Security

You can configure the Login Page to require that the user is connected via HTTPS. In Resource Scheduler Admin, in the Security Controls Tab in the Options Page you can force logins to use SSL protocol. Instead of an `http:` address to Resource Scheduler, users must enter `https:` to view the Resource Scheduler Login Page. A user will not be able to login to Resource Scheduler using HTTP. The user will only be able to login using HTTPS.

Password Security

All locations, groups, resources, and reservations in Resource Scheduler may be set with password protection. Additionally, a password can be set to control application-wide security. Location, group and resource level passwords do not override passwords set for a specific reservation. If a user elects to set a password on a reservation, only those with the password will be able to edit or delete that reservation. The password-protected reservation will be visible in all of the day, week, and month views. If a user attempts to view the details of the reservation after the user has logged into Resource Scheduler, they will be prompted for the reservation password.

If you have installed RSOE (Resource Scheduler for Microsoft Outlook Exchange), password protection for Resource Scheduler does not provide access protection for RSOE.

This same prompt is used when passwords are set on a location, a group, or a resource. When a user creates, edits, or deletes a reservation on a protected location, group or resource, the user will be prompted to enter the password for the "lowest level" of security present. For example, if passwords are set at the group and individual resource level, the user would be prompted to enter the password for the individual resource and not the group password. This allows you to customize the security levels for reservations and resources.

When a user successfully enters a password for a location, group, resource or reservation, the password is stored in a cookie on the user's computer. The next time the user tries to access that same location, group, resource or reservation, the cookie is automatically used to enter the password. This saves time for the user by not requiring them to re-enter passwords for a resource they may have been assigned to manage. This feature can be disabled so that no cookies are used and password entry will be required for every action.

If multiple users share computers, it is recommended to not enable cookies on the Default User. Individual users should be encouraged not to enable cookies if they share a computer. For more information on the Default User, please refer to the section "The Default User" in this manual.

Application Security

You can restrict the creation or modification of reservations by enabling application-wide security for editing and creating. Users can still view schedules and conduct resource searches, but they cannot create or modify a reservation unless they know the Application-wide security password. This is a simple form of security and the password should be changed periodically.

For more information, see "Security Controls Tab" in the chapter "Configuring General Options".

Authentication Method

The authentication method available in the Standard Edition is **Scheduler Only**. The authentication methods available in the Enterprise Edition are **Scheduler Only** and **IIS with Scheduler.** Three additional methods are available in the Enterprise Edition with the Directory Services Integration Module: **Scheduler with NTLM, Scheduler with LDAP,** and **IIS with NTLM**. Before you configure an authentication method other than **Scheduler Only**, you must enable individual user access. The authentication method can be accessed from the Security Controls tab in the Options Page.

Scheduler Only
(Available in all editions)
When this option is selected, users are authenticated during login using only the information in the Resource Scheduler database. An administrator must create an individual account for each user. This method requires the most amount of administrative work, but does not require the use of external systems or networks for authentication.

IIS with Scheduler
(Enterprise Edition Only)

Users will be prompted for a password from IIS instead of logging in from the Resource Scheduler Login Page. This information will then be used to authenticate the user against the Resource Scheduler user database. Each user must have a valid NT login account on the web server in order to access Resource Scheduler. Each user must have a Resource Scheduler account created prior to their first login.

For more information about **Scheduler with NTLM, Scheduler with LDAP, IIS with Scheduler,** and **IIS with NTLM** Authentication Methods in the Enterprise Edition with the Directory Services Integration Module, please see the section "Directory Services Integration Module" in this guide.

For information on configuring general options, see "Security Controls Tab" in the chapter "Configuring General Options".

User Security

(Enterprise Edition Only)

There are various options for configuring user security in the Security Controls tab in the Options Page. You can enable individual user access, use security groups for users, and allow users to add themselves. You can enable Implied Security for Reservations to allow only the user who created the reservation, or an administrator, to be able to update or delete the reservation.

For more information, see "Security Controls Tab" in the chapter "Configuring General Options".

Security Groups

(Enterprise Edition Only)

Users with a large number of resources or many locations will find that Group Security provides more flexibility in controlling access to resources. With Group Security, administrators can create multiple security groups, with each group defining the specific access users are allowed to have for the groups of resources at each location. This is useful for organizations with multiple locations that wish to have local administrators at each location, but do not want to grant them system-wide administrator rights. A security group can be setup for each location and each local administrator would be granted access to this security group. System-wide administrators would be granted access to all the local administrator security groups.

For more information on Security Groups, please consult the section "Security Groups" in this guide.

When Group Security is enabled, individual user security is disabled. Therefore it is very important that you check all group security settings before enabling this feature. Group Security is only available in the Enterprise edition of Resource Scheduler.

Schedule Security

Schedule Security uses the Scheduler Login Page with the Scheduler Database to validate users.

Resource Level Security

Each resource can be configured with its own unique password. If a password is configured on a resource, the end user will need to enter the password for that resource in order to schedule it.

In versions prior to v7.20 of Resource Scheduler, security settings could be established for groups of users and resources. Beginning with v7.20, security settings can be modified for any resource. This includes the ability to modify user group rights for the resource or to override security rights for an individual. Resource Level Security allows for a single user to have rights over a single resource in a group or allows multiple users to share administrative rights over a single resource. Resource Level Security allows administrators to create security settings as granular as they wish.

Additionally, each resource can be configured to require an approval for use via a wait list or pending approval process.

Reservation Security

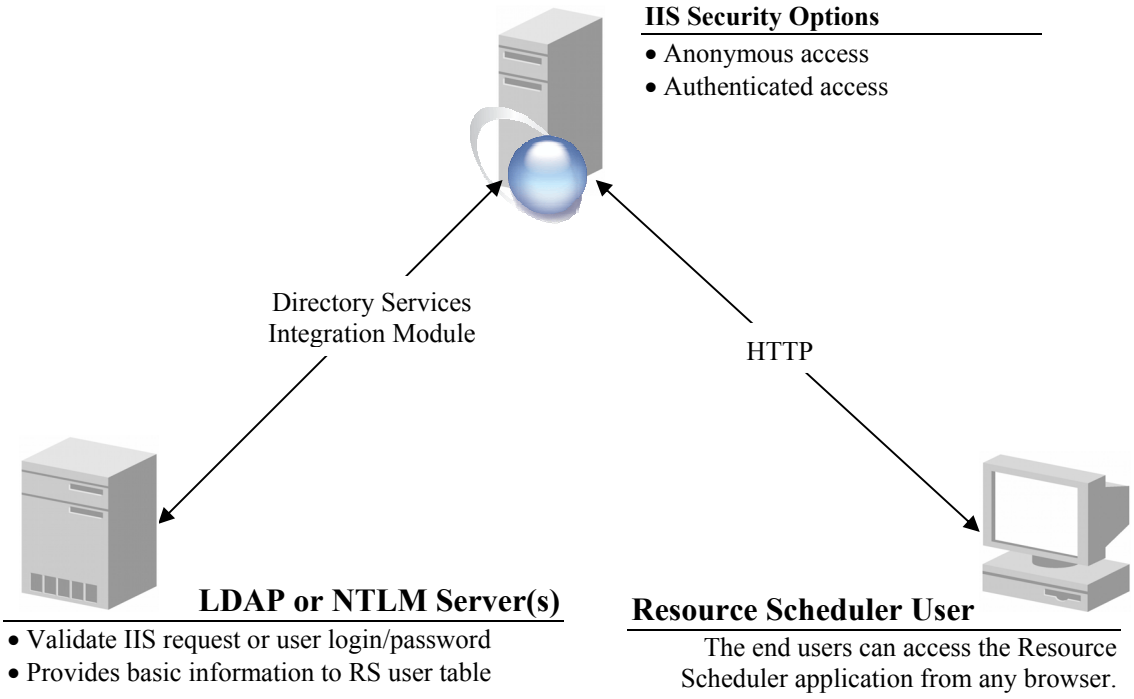
All users have the option to protect their reservation with a password. Additionally, administrators may wish to activate Implied Security in the Options section. With Implied Security enabled, only the user who created the reservation or an Administrator may update or delete that reservation.

Directory Services Integration Module

The Directory Services Integration Module for Resource Schedule enables the integration of LDAP, NTLM, and Active Directory authentication methods in the Enterprise Edition for a more secure experience. You should be familiar with the configuration of NTLM, Active Directory, or LDAP in your network before proceeding.

With the Directory Services Integration Module enabled and configured, you do not need to create individual user accounts. These accounts will be created automatically the first time a user is logged in.

The Directory Services Integration Module for Resource Scheduler allows for seamless user integration and management with existing corporate account management tools such as LDAP and NTLM. This add on module reduces overall resource maintenance by using your network security and login information in place of Resource Scheduler. The following graphic helps to show this relationship:


IIS Security Options
• Anonymous access
• Authenticated access
Directory Services Integration Module
HTTP
LDAP or NTLM Server(s)
• Validate IIS request or user login/password
• Provides basic information to RS user table
Resource Scheduler User
The end users can access the Resource Scheduler application from any browser.

The four additional authentication methods available in the Enterprise Edition with the Directory Services Integration Module are:

- **Scheduler with NTLM**
  NTLM is a common authentication method used in businesses. When a user logs into a Microsoft Domain on their network, NTLM authentication is used. Resource Scheduler can use this authentication method to control access. Resource Scheduler supports a single primary NTLM domain.

  When a user connects to Resource Scheduler for the first time, they will be presented with the Resource Scheduler login page where they enter their network login name and password. Resource Scheduler will then verify this information against the server specified in the *Login Server String*. If entered correctly, the User Information Page will appear in which the user can enter additional information such as email address. On subsequent visits, the user will only be prompted for their login information. If a user's network login account becomes disabled, their Resource Scheduler login account will also become disabled.

  If this option is selected, you must also enter a valid Login Server String, such as: `yourcompany`

- **Scheduler with LDAP**
  LDAP is another common authentication method. This authentication method works in the same way as NTLM authentication, except that users are authenticated against an LDAP server instead of a network server. Because LDAP contains additional information about users, including email address, user information is automatically populated at the user's first login. LDAP can be used to authenticate against an Active Directory server. Chose this option if you use Active Directory. All other functions operate in the same way as using *Scheduler with NTLM*.

  If this option is selected, you must also enter a valid Login Server String. Such as `LDAP: dc=us,dc=yourcompany,dc=com`

- **IIS with NTLM**
  Users will be prompted by IIS with the NTLM login/password prompt instead of the Resource Scheduler login page. This method works in the same way as *Scheduler with NTLM* authentication. This method is used by organizations who do not wish to use the standard login page.

*If **IIS with NTLM** is selected, you must also enter a valid Login Server String, such as:* `yourcompany`

- **Scheduler with Netegrity**
  Users will be prompted with a Netegrity login/password prompt instead of the Resource Scheduler login page. This method is used by organizations who do not wish to use the standard login page.

Active Directory and NTLM Authentication

NTLM validation is performed against a single Primary Domain Controller (PDC) or a Backup Domain Controller (BDC). User information passed to the NTLM Server for authentication. If the user is successfully validated, Resource Scheduler returns the username from the NTLM Server to assure that Resource Scheduler has the most up-to-date values. Since email addresses are not available from NTLM accounts, email addresses cannot be synchronized.

LDAP Authentication

Resource Scheduler performs LDAP authentication in two parts. First, Resource Scheduler queries the LDAP server to return data about the distinct user account whose "User Login" attribute matches the value entered by the user. This must be a distinct value, and return an object of type "User Object Class".

Organizations often have equipment that has the same name as a person configured in their LDAP server. That is, the organization may have a user "John Smith", and a laptop used by John Smith that is also named "John Smith". Resource Scheduler will use the account with the object of type "User Object Class".

Once the query identifies the distinct user account, the Distinguished Name from that account and the password are passed to the Domain server to "bind" a connection. This process identifies the validity of the password entered by the user. When the password is verified, the user account in Resource Scheduler is updated with the most up-to-date name, email, department, and telephone values.

Installing the Directory Services Integration Module

The installation of the Directory Services Integration Module is simply a license key that you add to the Company Info tab in Resource Scheduler Admin. You must have installed the Enterprise Edition of Resource Scheduler before you can proceed.

If you are upgrading from the Standard Edition to the Enterprise Edition with the Directory Services Integration Module, you will need to reinstall the Resource Scheduler Application files and provide the Enterprise Edition Serial Number during the installation. This will ensure that all Enterprise Edition files are installed and all Enterprise Edition virtual directories are properly created.

❖ **To install the Directory Services Integration Module:**

1. Verify that you have the Enterprise Edition of Resource Scheduler installed.
2. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
3. Click on the **Options** link.
   The General Configuration Page opens to the General Options tab.
4. Click on the **Company Info** tab.
   The Company Information Page appears.
5. In the Integrated Security field, enter the license key for the Directory Services Integration Module.
6. Click the **Submit** button.
   The Directory Services Integration Module is activated.

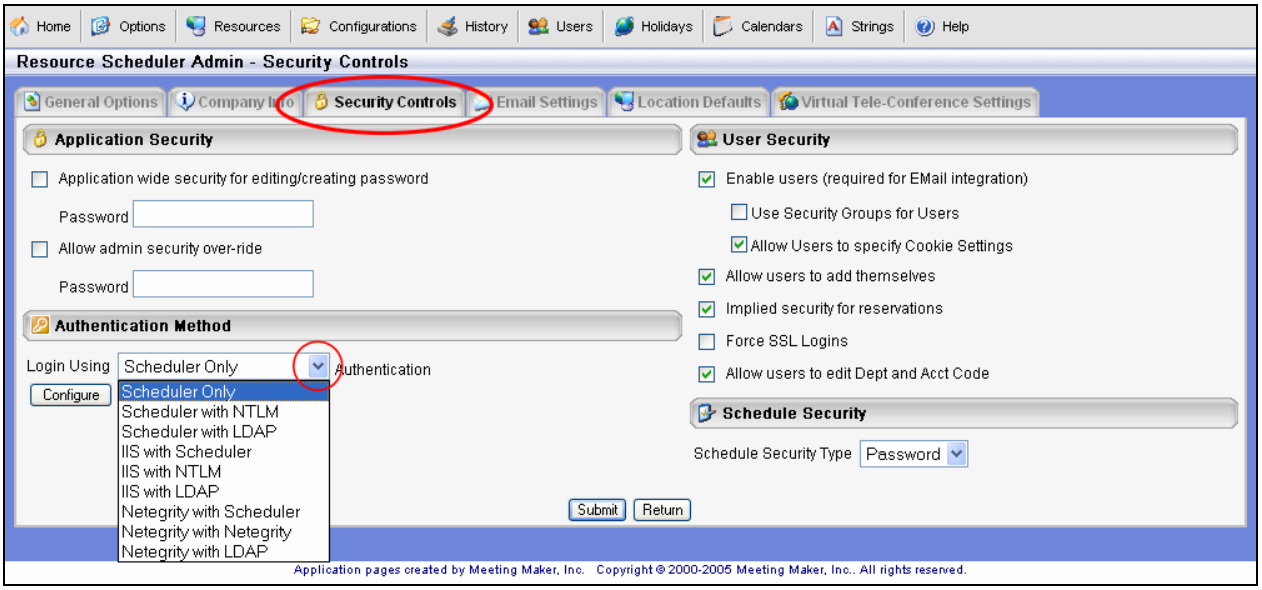
Configuring the Directory Services Integration Module

You can configure the Directory Services Integration Module in Resource Scheduler Admin.

Configuring for NTLM or Active Directory

❖ **To configure the Directory Services Integration Module for NTLM/Active Directory:**

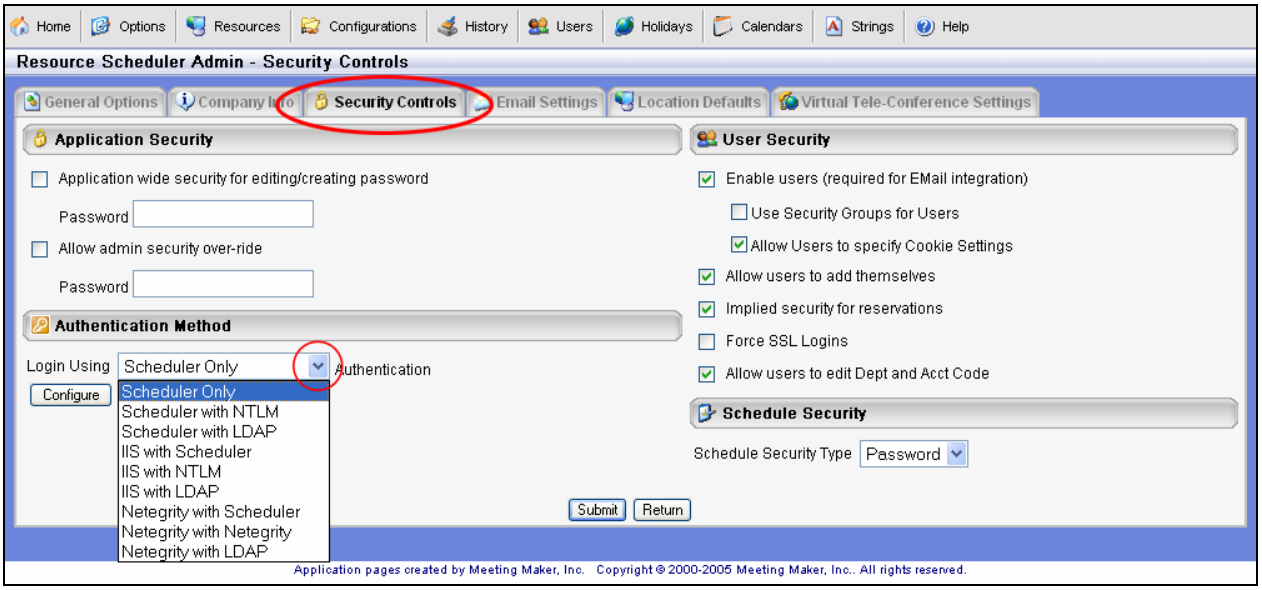
1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Verify that you entered the correct license key in Resource Scheduler Admin in **Options** then **Company Info**.
3. Click on the **Security Controls** tab.
   The Security Control tab opens.



4. In the Authentication Method section, select **Scheduler with NTLM** or **IIS with NTLM** from the drop-down list.
5. Click on the **Configure** button under the drop-down list.
   The NTLM Login Server Info dialog appears in a new window.
6. In the Login Server, IP Address, or Domain field, enter the Login Server, IP Address, or Domain string.
7. Press **Submit**.
   The Login Server, IP Address, or Domain window is closed and the Authentication Method is configured.

❖ **To configure the Directory Services Integration Module for LDAP:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Verify that you entered the correct license key in Resource Scheduler Admin in **Options** then **Company Info**.
3. Click on the **Security Controls** tab.
   The Security Control tab opens.
4. In the Authentication Method section, select **Scheduler with LDAP** from the drop-down list.



5. Click on the **Configure** button under the drop-down list.
   The LDAP Login Settings dialog appears in a new window.
6. In the LDAP Login Settings dialog, enter Login Server String, User Object Class, Bind Type, Bind With, and Schema attributes. For more information about each field, please consult "LDAP Login Settings".
7. Press **Submit**.
   The LDAP Login Settings dialog is closed and the Authentication Method is configured.

Verifying the Directory Services Integration Module

After you have activated the Directory Services Integration Module and have configured the authentication method, you should verify that your settings are correct before users log in.

Verifying NTLM Settings

You will first test your settings from the */RSAdmin/NTLM_Test.asp* test page. You will then repeat these tests with the */ResourceScheduler/NTLM_Test.asp* page.

❖ **To verify the NTLM Settings:**

1. Log into the Resource Scheduler Admin application as an administrator.
   The Resource Scheduler Admin Home Page appears.

2. In the address bar of your navigator, enter the following address:
   `http://127.0.0.1/RSAdmin/NTLM_Test.asp`
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
   The Meeting Maker NTLM Validation Diagnostic Tool dialog appears.
3. Complete the appropriate fields.
4. Click on the **Test** button.
5. The test results will appear above the **User Name** field.
6. If any field is invalid, you may need to reconfigure your test fields and perform the test again.
   You can reconfigure any connection information in the **Options>Security Controls** page of the Resource Scheduler Admin application. Click on the **Configure** button to configure the Authentication Method.
   You may proceed after all fields are valid.
7. In the address bar of your navigator, enter the following address:
   `http://127.0.0.1/ResourceScheduler/NTLM_Test.asp`
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
   The Meeting Maker NTLM Validation Diagnostic Tool dialog appears.
8. Complete the appropriate fields.
9. Click on the **Test** button.
10. The test results will appear above the **User Name** field.
11. If any field is invalid, you may need to reconfigure your test fields and perform the test again.
    You can reconfigure any connection information in the **Options>Security Controls** page of the Resource Scheduler Admin application. Click on the **Configure** button to configure the Authentication Method.

Verifying LDAP Settings

You will first test your settings from the */RSAdmin/LDAP_Test.asp* test page as an administrator, and then as the anonymous account if it is enabled. You will then repeat these tests with the `/ResourceScheduler/`*`LDAP_`*`Test.asp` page as an administrator, and then as the anonymous account if it is enabled.

❖ **To verify the LDAP Settings:**

Phase 1: Verify connection with administrator permissions.

1. Log into the Resource Scheduler Admin application as an administrator.
   The Resource Scheduler Admin Home Page appears.
2. In the address bar of your navigator, enter the following address:
   `http://127.0.0.1/RSAdmin/LDAP_Test.asp`
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
   The Meeting Maker LDAP Validation Diagnostic Tool dialog appears.
3. Complete the appropriate fields.
4. Click on the **Test** button.
5. The test results will appear above the **Name or Unique ID** field.
6. If any field is invalid, you may need to reconfigure your test fields and perform the test again.
   You can reconfigure any connection information in the **Options>Security Controls** page of the Resource Scheduler Admin application. Click on the **Configure** button to configure the Authentication Method.
   You may proceed after all fields are valid with an administrator account.
7. In the address bar of your navigator, enter the following address:
   `http://127.0.0.1/ResourceScheduler/LDAP_Test.asp`
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
   The Meeting Maker LDAP Validation Diagnostic Tool dialog appears.
8. Complete the appropriate fields.
9. Click on the **Test** button.
10. The test results will appear above the **Name or Unique ID** field.
11. If any field is invalid, you may need to reconfigure your test fields and perform the test again.
    You can reconfigure any connection information in the **Options>Security Controls** page of the Resource Scheduler Admin application. Click on the **Configure** button to configure the Authentication Method.
    You may proceed after all fields are valid with an administrator account.

Phase 2: Verify connection with anonymous permissions.

12. If the anonymous account is enabled for this virtual directory, log out of the Resource Scheduler Admin application as an administrator and then repeat steps 2-11 as the anonymous account.

You may proceed after all fields are valid as the anonymous account.

13. If any field is invalid, you may need to reconfigure your test fields and perform the test again.
    You can reconfigure any connection information in the **Options>Security Controls** page of the Resource Scheduler Admin application. Click on the **Configure** button to configure the Authentication Method.

LDAP Login Settings

The LDAP Login Settings Page, `ConfigAut.asp`, allow you to configure connection settings to authenticate a user with an LDAP Server.

Field	Description

Login Server String	Configures the connection string to the LDAP directory server used to validate accounts. This varies by LDAP implementations. Here are some of the possible formats:
	`LDAP://DOMAIN`
	`LDAP://Subdomain.company.com`
	`LDAP://CompanyDomain/ou=people,o=company.com`

User Object Class	Identifies the class name for users in the LDAP schema. By default, the setting is "user".
Bind Type	Identifies the type of bind used when validating user passwords, either Simple or Secure. Secure binds require that the web server is authenticated to securely bind to the LDAP server.
Bind With	Identifies the schema with which to bind, either Distinguished Name or User Login. When attempting to authenticate the user account, this setting determines which value is passed to the server.
Schema Attributes	
User Login	Identifies the LDAP schema attribute that contains the distinct user login.
Telephone Field	Identifies the LDAP schema attribute that contains the user's telephone number as shown in Resource Scheduler.
Department Field	Identifies the LDAP schema attribute that contains the user's department as shown in Resource Scheduler.
Name Field	Identifies the LDAP schema attribute that contains the user's name as shown in Resource Scheduler.
Bind Domain (Optional)	Used when the binding domain is different than the one specified by the Login Server.

ADsPath Filter (Optional)

If the Distinguished Name returned by the LDAP query needs have some of its values replaced or removed before binding to the server, enter the text that needs to be replaced or removed from the Distinguished Name.

For example, a user query might return the following distinguished name:

```
LDAP://nae01/empid=10032742, ou=people,
o=company.com
```

But needs to bind with:

```
empid=10032742, ou=people, o=company.com
```

Users would enter `LDAP://nae01/` into the ADsPath Filter value to remove `LDAP://nae01/` from the Distinguished Name when binding.

Chapter 4: Configuring General Options

This chapter contains information about configuring general options. This chapter focuses on the options available in the Options for General Configuration.

Topics include:

- Overview
- The General Options Tab
- The Company Info Tab
- The Security Controls Tab
- The Email Settings Tab
- The Location Defaults Tab

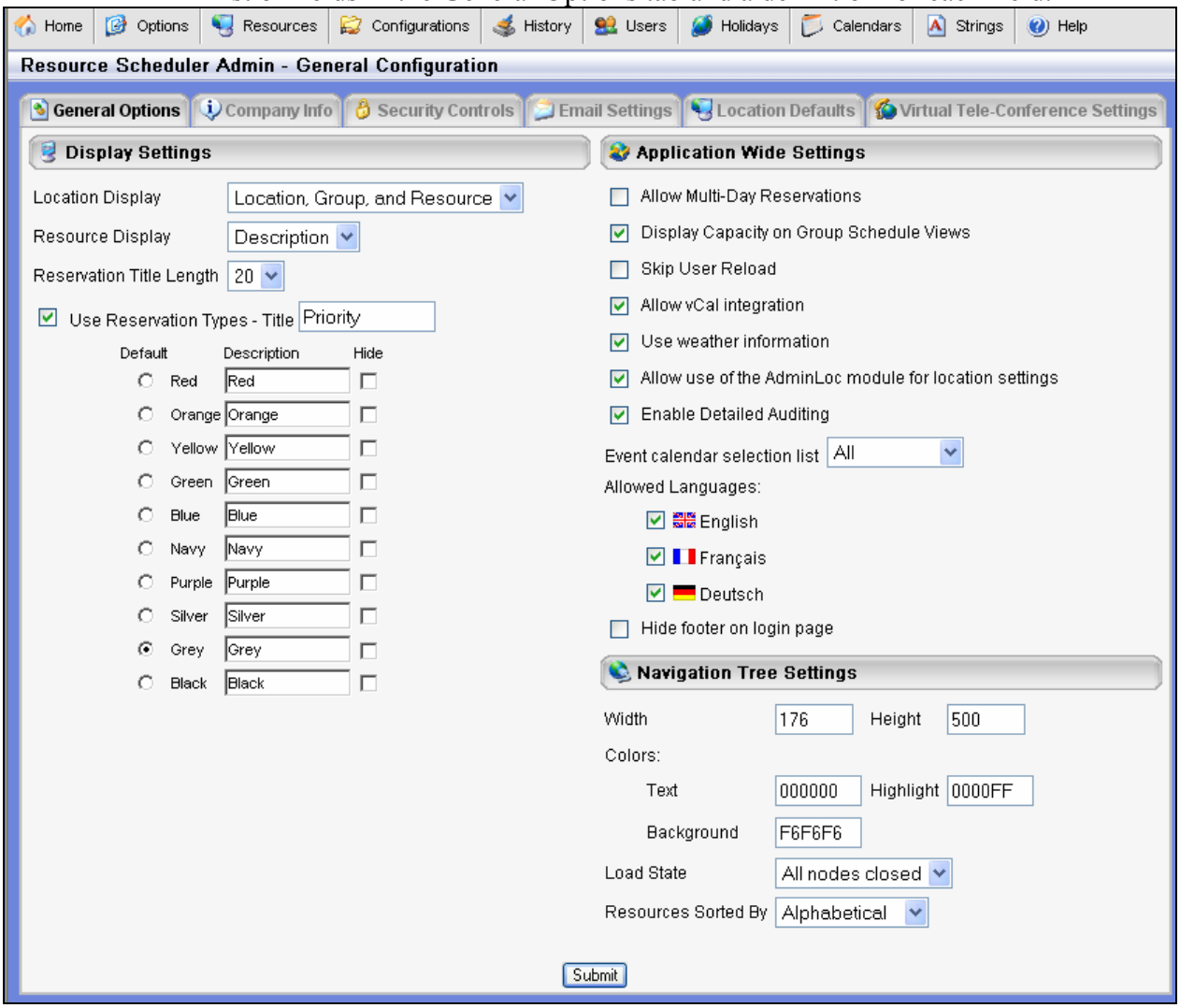
Overview

The Options pages allow you to control general information, company information, basic security, email settings, and location defaults. This includes the ability to change the schedule display and the navigation tree, as well as enable or disable certain application-wide features, such as weather information.

Each page in Resource Scheduler Admin may have as many as three buttons: Submit, Reset, and Return. The Submit button applies the changes made in that page. The Reset button will erase any changes made before pressing the Submit button. Return will prompt you to save any changes made then will bring you to the default view for that page. For example, if you navigate to the Email Settings tab under Options and make changes, you will be prompted to save your changes when you click on the ***Return*** *button and then the General Options tab will appear.*

General Options Tab

The General Options tab allows you to configure general items such as Display Settings, Application Wide Settings, and Navigation Tree Settings. Below are a list of fields in the General Options tab and a definition for each field.



Field	Description
Display Settings	
Location Display	Configures whether the Location, Group, and Resource are displayed, just the resources, or display nothing in Resource Scheduler.
Resource Display	Configures whether the Resource Title or Resource Description displays in Resource Scheduler. Most organizations use Title to keep the interface simple.

Reservation Title Length	Configures the maximum length of a reservation title. You can choose 10, 20, 30 or 40 characters. 20 is the recommended length, as more characters may make the schedule appear cluttered and difficult to read.
Use Reservation Types	Enables users to classify their reservations into color coded categories. You can specify a default color. When enabled, users can color code the event from a drop-down list.

Application Wide Settings

Allow Multi-Day Reservations	Permits users to create reservations that span more than one day.
Display Capacity on Group Schedule Views	Enables the display of the capacity for a resource in Group Schedule Views.
Skip User Reload	Omits loading application changes at login. Each time a user logs into Resource Scheduler the application settings are scanned for changes. In small organizations this helps to ensure changes to the configuration are presented to the users as soon as possible. In large organizations this scanning can consume considerable server resources, and therefore can be disabled. If the User Reload option is disabled, then the administrator must manually load any application changes. This is done by loading the following page in Resource Scheduler: `http://127.0.0.1/ResourceScheduler/ReLoad.asp` Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
Allow vCal integration	Enables users to create a vCalendar format (.vcs) file. This allows users to update their Outlook, Palm or other vCal-compliant PIM software. Users can easily send the reservations they make with Resource Scheduler to their own personal electronic scheduling device. vCal files are stored in the vCalfile directory on the system where Resource Scheduler was installed. They take up a minimal amount of disk space and can be deleted at any time. The files will be regenerated each time they are needed.
Use weather information	Enables a link to weather information to appear for users. Weather information is updated every hour.
Allow use of the AdminLoc module for location settings	Enables the Location Admin module in the Enterprise Edition. The Location Admin module allows local administrators to update and manage resources for their location, without having access to other location information or system-wide settings. For more information, please consult the section "Using the Location Admin Module".

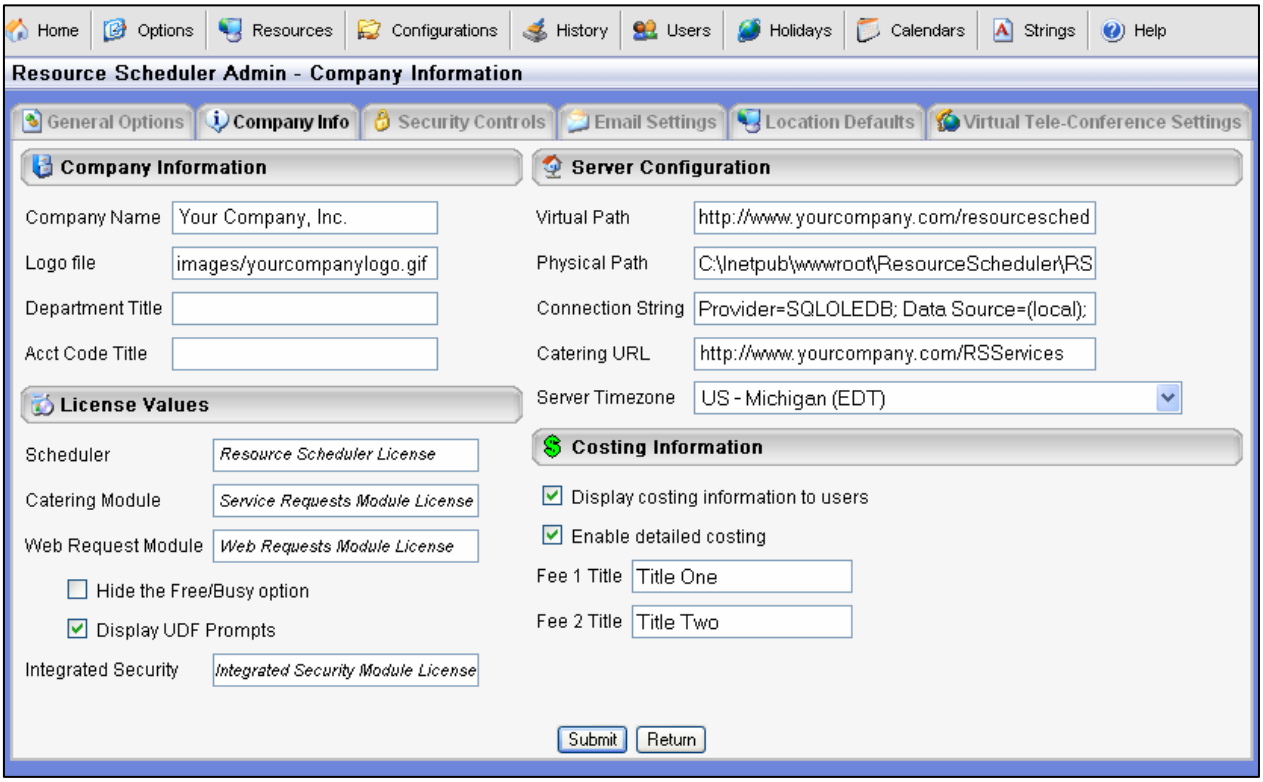
Enable Detailed Auditing	Enables users to generate Crystal Reports in the Enterprise Edition with the Crystal Reports components installed.
Event Calendar Selection List	Enables an event calendar to display a drop-down list of other event calendars in the Enterprise Edition. "None" means that they will never see a list of possible calendars to view. "Anonymous" means they will only see calendars that allow anonymous viewing (not code protected). For more information on event calendars, please consult the section "Creating and Maintaining Event Calendars".
Allowed Languages	Enables English, French, and German to be used in the Admin or User interface in the Enterprise edition. When a language has been activated, the Admin or User will see this language as an option at the Login page.
Hide footer on login page	Deactivates the footer at the Login page.

Navigation Tree Settings

Width/Height	Controls the width and height of the navigation tree in pixels. You can adjust the default size (176x400 pixels) to accommodate a long list of locations. It is suggested that the default settings be used during the initial setup of the application.
Colors	Controls the background, line, text, and highlight colors. The values are in hexadecimal color format.
Load State	Controls whether all nodes are open or closed in the Navigation Tree by default. Organizations with a large number of locations, groups or resources may wish to keep the nodes closed by default. The load state affects the expansion of both locations and groups and is set for all locations.
Resources Sorted By	Controls the sort method of items in the navigation tree. The sort method can be changed to use the display order for each resource in order to match the schedule display.

Company Info Tab

The Company Info tab contains all of the license keys and server configuration information for Resource Scheduler. Most of this information is populated during installation and should not require modification. If your configuration changes, you can modify these settings.



Improper values in this section can cause the web application to stop working. Before changing any information in the Company Info tab, it is recommended to either make note of all information in this tab, or perform a backup of the web application files and the Resource Scheduler database files.

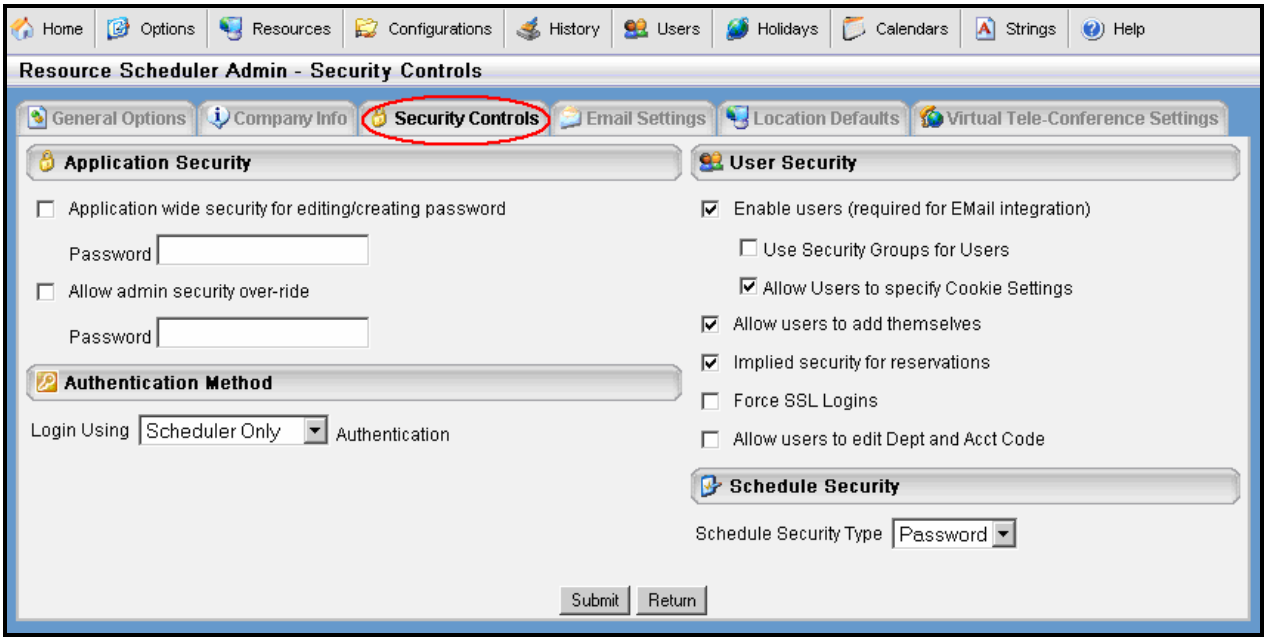
Next are a list of fields in the Company Info tab and a definition for each field.

Field	Description
Company Information	
Company Name	Configures the name of your company. You can enter up to 40 characters.
Logo File	Replaces the default Resource Scheduler logo with your company logo. To fit in the space provided, the image should not exceed 204x88 pixels. The image must be a GIF file. It is recommended that the image has a transparent background. Enter the filename in this field, including any relative directory path. If you place your company logo file, `ourlogo.gif`, in the Resource Scheduler `images` directory, you would enter "`images/ourlogo.gif`". If this field is blank, then the default Resource Scheduler logo will appear.
Department Title	Configure the department, organization, or workgroup. This title will then be displayed on the user setup page and other places within the application.
Acct Code Title	Configures an accounting or chargeback code or title for this installation of Resource Scheduler.
License Values	
Scheduler	Displays the license key for Resource Scheduler. Modifying this field may cause Resource Scheduler to no longer function.
Catering Module	Displays the license key for the Services Module for Resource Scheduler, previously known as the Catering Module. Modifying this field may cause the Services Module for Resource Scheduler to no longer function.
Web Requests Module	Displays the license key for Resource Scheduler Web Requests Module. Modifying this field may cause the Web Requests Module for Resource Scheduler to no longer function.
Integrated Security	Displays the license key for Resource Scheduler Directory Services Integration Module. Modifying this field may cause the Directory Services Integration Module for Resource Scheduler to no longer function.
Server Information	

Virtual Path	Displays the virtual path created during installation for end users to access Resource Scheduler. If you rename the virtual directory in IIS, you should also change this setting to reflect the new path name. The default virtual path is: `http://127.0.0.1/resourcescheduler` where 127.0.0.1 is replaced by the IP address or DNS name of your web server machine.
Physical Path	Displays the physical path where Resource Scheduler is installed on your server. The default location for installation is: `C:\inetpub\wwwroot\Rscheduler`
Connection String	Displays information on how to connect to the Resource Scheduler database. The connection string may point to a database installed on another server. This connection information should not be modified unless you move the Resource Scheduler database to another server.
Catering URL	Displays the link to the Service Requests Module for Resource Scheduler. This field is configured during the installation of the Catering module and should not require modification.
Server Time Zone	Configures the time zone in which the server resides.
Costing Information	When you activate detailed costing, the change will occur in resource configuration. A "Costing information" tab will appear that allows you to configure a base fee (one per reservation) and an hourly cost (up to a specified number of hours per day) for each reservation.
Display costing information to users	Controls where users have access to the second page you listed. Even if the users cannot access the tab, the database tables are still updated.
Enable detailed costing	This controls whether the system will use the detailed costing. There are two fee types that can be configured and there is an additional costing tab that shows up at the resource level if this is enabled.
Fee 1 Title	These are the titles for the additional costing fields.
Fee 2 Title	These are the titles for the additional costing fields.

Security Controls Tab

The Security Controls tab establishes various security options in Resource Scheduler. Although these options can be changed after installation, administrators should consider these settings prior to installation. Some settings will require interaction with other servers on your network and may need approval from those responsible for network or application security.



For more information on security, please consult the section Security Concepts.

Below are a list of fields in the Security Controls tab and a definition for each field.

Field	Description
Application Security	
Application wide security for editing/creating password	Restricts the creation or modification of reservations to those who know the password. Users can still view schedules and conduct resource searches. This option offers a simple form of security in which a single password is used across all groups and resources. The password can be up to 30 characters in length. This should not be used in conjunction with Location, Group or Resource passwords.
Allow admin security over-ride	Allows people who know the password to create or edit any reservation in the system. By entering the over-ride password, the administrator can clear or change the reservation password. The password can have a maximum of 30 characters. To activate the over-ride mode in the scheduler, you must access the following page:

`http://127.0.0.1/ResourceScheduler/superuser.asp`
Replace 127.0.0.1 with the IP address or DNS name of your web server machine.

Authentication Method

Login Method Configures the method of authentication at login in the Enterprise Edition. Users must be enabled in the system before configuring an authentication method. Five different methods are available to authenticate users during the login process: Scheduler Only, Scheduler with NTLM, Scheduler with LDAP, IIS with Scheduler, and IIS with NTLM. For more information on Login Methods, please consult the chapter "Security Concepts".

User Security

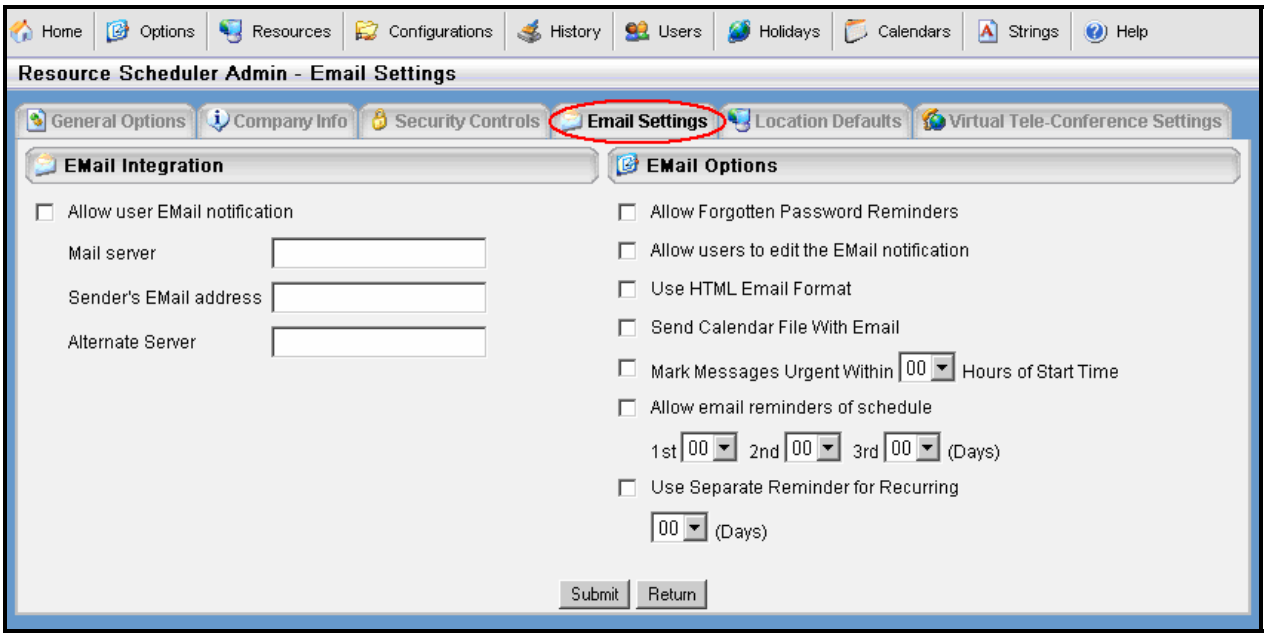
Enable Users	Enables individual user access in the Professional and Enterprise editions. When enabled, end-users have options to customize characteristics of the web application as it appears to them. Reservations and assignments can be associated with specific users, and email can be used to notify users of schedule changes or other information. When disabled, there is no distinction between Resource Scheduler end users: Personal customization and many other options are not available.
Use Security Groups for Users	Enables administrators to further control access to locations and groups of resources in the Enterprise Edition. Security Groups are only available when users have been enabled in the application. By default, individual user security is used when users are enabled.
Allow Users to specify Cookie Settings	Enables users to control various cookie settings when individual user access is enabled.
Allow Users to Add Themselves	Enables users to add themselves to Resource Scheduler in the Professional and Enterprise editions. This eliminates the need for administrators to add users. This is ideal if security is not an issue in your organization. Alternatively, administrators import users from a text or other source. For more information on importing users, please see the section "Importing Users".
Implied Security for Reservations	Enables only the user who created the reservation, or an administrator, to update or delete the reservation in the Enterprise Edition.
Force SSL Logins	Enables logins only when accessing Resource Scheduler through Secure Socket Layer (SSL). When enabled, users can only connect from an `https` login page.

Schedule Security

Schedule Security Type	Enables protection options for reservations. "Password" and "Private" activates an option to hide reservation details from other users when creating or editing a reservation. Other users will see the resources as unavailable, but the description will show "Private". Users will not be able to see the details of a reservation. The "Password" option means that access to the details is password protected. The "Private" option means that users will have a checkbox labeled "Private" which they can check to make it private. "None" means users won't be given that option.

Email Settings Tab

The Email Settings tab defines email settings. Below are a list of fields in the Email Settings tab and a definition for each field.



Field	Description
Email Integration	
Allow user EMail notification	Enables notification via email. Resource Scheduler will automatically notify users about a change or cancellation in a reservation. A valid SMTP mail server and a valid email address for this automatic email are required.
Mail server	Configures the SMTP mail server.
Sender's EMail address	Configures the email address from which email is sent.
Alternate Server	Configures an alternative SMTP mail server.
EMail Options	
Allow Forgotten Password Reminders	Enables users to retrieve their Resource Scheduler password without assistance from an administrator. This option is not available for NTLM or LDAP authentication methods. Users can enter in their email address or login name and their password will be sent to the email address in their account.
Allow users to edit the EMail notification	Enables users to edit email notification when using the request/approval functionality in the Enterprise Edition. Users responsible for approving requests can edit the system

generated email messages before they are sent.

Use HTML Email Format — Enables all system generated emails relating to resource use to be sent in HTML format. Password reminder and Request Tab notifications are not affected by this setting.

Mark Messages Urgent Within X Hours of start time — Enables all messages to be marked as urgent within the defined number of hours before the start time of the reservation.

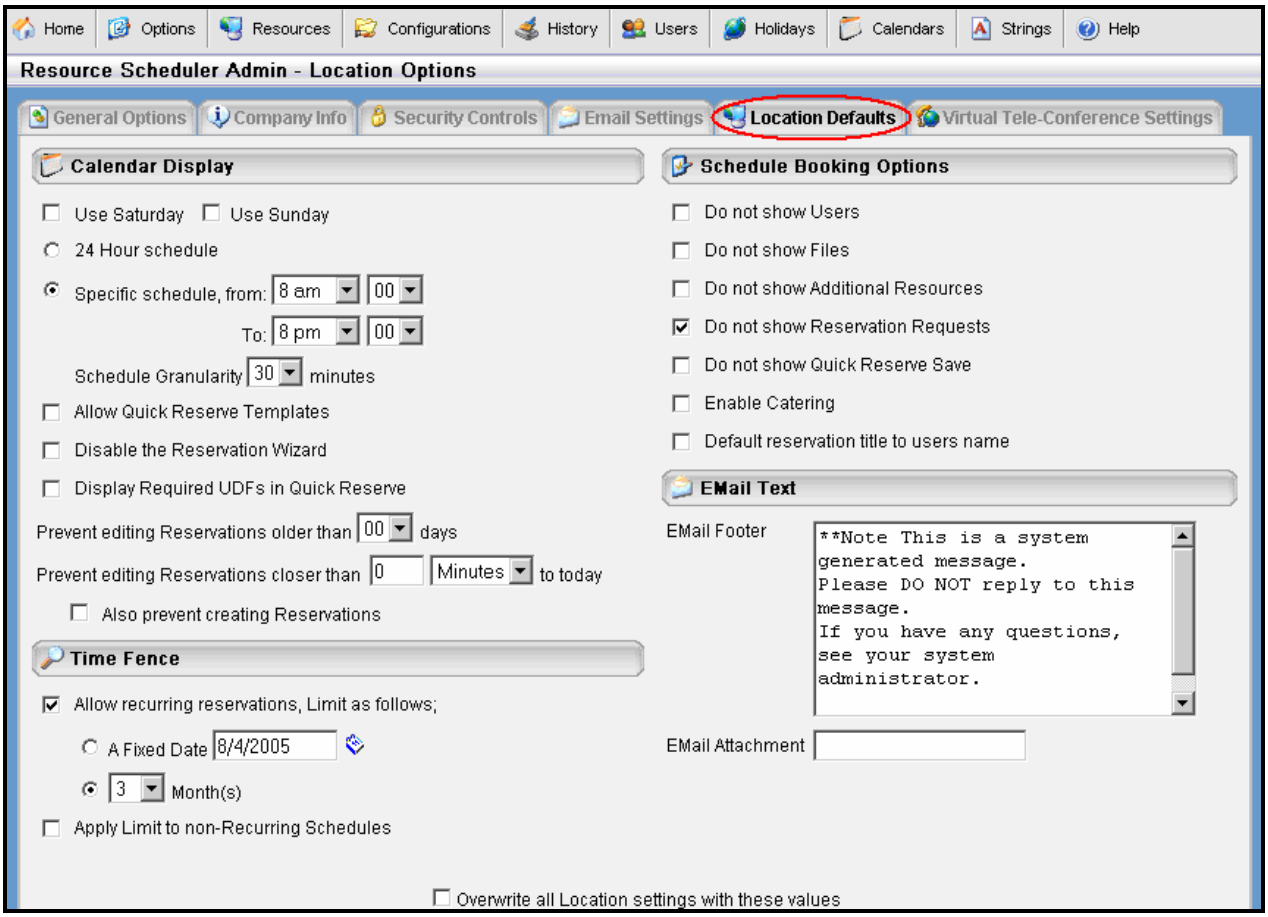
Allow email reminders of schedule — Enables system generated reminder messages of reservations. This feature requires the use of the Windows Task Scheduler, and is only available on IIS servers on Windows 2000 or XP. When enabled, email messages will be generated for each of the time intervals set. You must create a task to run periodically in the Windows Task Scheduler. The program to generate reminder messages is `EmailRemind.exe` and is located in: `C:\Inetpub\wwwroot\Rscheduler\Bin\EmailRemind.exe`

For more information, please consult the section "Enabling System Generated Reminder Messages" in this manual.

Location Defaults Tab

All locations created in Resource Scheduler will use the settings configured in the Location Defaults tab until modifications are made to a specific location. Once a specific location has been modified, these default settings no longer apply to that location.

You can force the default settings to be applied to all existing locations in the application by checking the Overwrite box just above the Submit button before saving the page. This will populate all the existing locations with information configured on this page. You can still edit individual locations after all the default location information have been overwritten.



Field	Description
Calendar Display	

24 Hour Schedule/ Specific schedule	Configures the time display. You can choose either a 24-hour schedule or a specific schedule. A 24-hour schedule displays all times in a day and users can create reservations for any time. If you choose Specific schedule, you must choose the schedule time by clicking on the drop-down menus to select the hour at which you would like your schedule to begin and end.
Schedule Granularity	Configures the time display units on schedules. If you select 30 as the granularity, all of the calendar views will show time in 30-minute increments (i.e. 7:00, 7:30, and 8:00). When you set granularity, the reservation times will be in those increments. If you set the granularity to be 30 minutes, the only options in the Quick Reserve section would be 00 or 30 minutes. This prohibits users from reserving resources at 7:15 or 7:45, for example.
Allow Quick Reserve Templates	Enables Quick Reserve Templates. Quick Reserve Templates allow standard types of reservations to be entered with fewer mouse clicks. These templates are most commonly used by organizations that schedule people or resources for appointments that require a standard amount of time, such as a haircut or massage. Quick Reserve Templates are displayed in the Quick Reserve section of Resource Scheduler and will automatically fill in the reservation description and the appropriate end time for the start time requested. The Quick Reserve Templates are unique by location.
Disable the Reservation Wizard	Disables the Reservation Wizard for all locations using the default settings. The Reservation Wizard is a way to schedule resources.
Display Required UDFs in Quick Reserve	Enables the display of required UDFs when a reservation is created using Quick Reserve.
Prevent editing Reservations …	Configures when the users can no longer edit reservations. This is used to prohibit changes in reservations that may cause problems. To deactivate these functions, leave at 0.
Search and Recurring	
Use Saturday/ Sunday	Determines whether Saturdays or Sundays are used in searches or for recurring reservations. If Saturday is a valid day for reserving resources, you would select Saturday, for example. If neither value is selected, weekend days will be ignored when searching for resource availability or when users create recurring reservations.

Allow Recurring Reservations	Enables users to create recurring reservations. If selected, you must also select the maximum number of months a user can make a recurring reservation. This prevents users from creating recurring reservations extending out for years at a time. By default, the limit is 3 months.
Apply Limit to non-Recurring Schedules	Configures the recurring schedule date limit to standard schedules. That is, no reservations can be created after a certain date or a rolling time period.

Schedule Booking Options

Do not show Users	Disables the appearance of the Attendees tab on the reservation detail screen for locations using default settings. Users at this location will not be able to invite guests from the Resource Scheduler list of users if this option is enabled.
Do not show Files	Disables the file attachment tab on the Reservation Detail page for locations using default settings. If you do not wish to allow users to attach files to reservations, enable this option.
Do not show Additional Resources	Disables the appearance of the Additional Resource tab in the Reservation Detail screen for locations using default settings. Users will not be able to reserve additional resources with the primary resource.
Do not show Reservation Requests	Disables the appearance of the Reservation Request tab for locations using default settings.
Do not show Quick Reserve Save	Disables the appearance of the Quick Reserve Save for locations using default settings.
Enable Catering	Enables the Catering Module, if installed. If enabled and the Catering Module installed, the Catering Module will appear for locations using the default settings. If the Catering Module is installed but you do not want all locations using the default settings to access the Catering Module, then disable this option. A Catering Tab will appear on the Reservation Detail screen when the Catering Module has been installed and enabled.
Default reservation title to users name	Enables the Reservation Title to be populated with the current user's full name when a user creates a reservation using the Quick Reserve and Wizard.

EMail Text

Email Footer	Configures the email footer for any system generated email. Use this space to include your message. This message is for locations using the default settings. Customized footers can be attached by location, see the section regarding Locations

for more information.

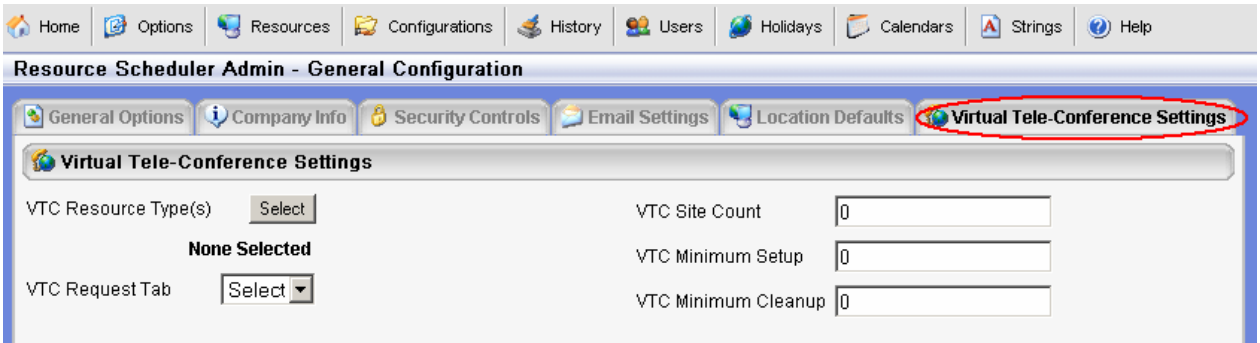
Email Attachment Configures a file attachment to be included with each system generated message. This is useful for distributing forms that must be completed prior to the event date. File attachments can be of any document type, such as Word or PDF. Some firewalls and email applications will block potentially dangerous attachments, so it is not recommended to attach executables or other file types that may be blocked.

Virtual Tele-Conference Settings

The Virtual Tele-Conference (VTC) Settings page allows users to specify resource types that are used for virtual teleconferences. Administrators can define the number of resources, that when combined, require a bridge connection versus point-to-point. A report is available for bridge operators to view the number of virtual teleconferences that have been scheduled for any period of time. Administrators can also choose to include a multi-line service tab in the connection count. By using a multi-line service tab, information can be collected on external sites connecting to the virtual teleconference. These external sites are then included in the bridge count. Additional time can automatically be added to the start and end of a virtual teleconference when the connection count equals the number set by the administrator. This functionality makes management of rooms and equipment used in virtual teleconferences much easier to manage.

The Virtual Tele-Conference (VTC) Settings page allows you to configure the following fields:

- **VTC Resource Type(s)**
  Click the select button to open the web page where you can select the resources that will be used for your video Tele-Conference.
- **VTC Request Tab**
  Select the Request Tab in which you would like the VTC settings to appear.
- **VTC Site Count**
  Enter the possible number of sites attending the teleconference.
- **VTC Minimum Setup**
  Enter the estimated number of minutes for setup time.
- **VTC Minimum Cleanup**
  Enter the estimated number of minutes for cleanup time.



Chapter 5: Locations, Groups, Resources, and Combinations

This chapter contains information about creating and maintaining locations, groups, resources, and combinations.

Topics include:

- Overview
- Creating and Maintaining Locations
- Configuring and Using the Location Admin Module
- Creating and Maintaining Groups
- Creating and Maintaining Resources
- Creating and Maintaining Combinations

Overview

You can create and maintain locations, groups, resources, and combinations. In order for the Navigation Tree to be displayed for the end user, you must define at least one location and then add one group and one resource to a location. The Standard Edition of Resource Scheduler allows you to create one location. The Professional Edition allows you to create two locations. The Enterprise Editions of Resource Scheduler allow you to create many locations based on your license key. All editions of Resource Scheduler allow you to create an unlimited number of groups and resources. After you have identified your locations, groups, and resources for your environment, you can begin creating them.

After changes are made in the administrative settings, end users must close then restart their browser for the changes to appear. All browser windows must be closed in order to clear out the old pages, including browser windows not running Resource Scheduler.

Locations

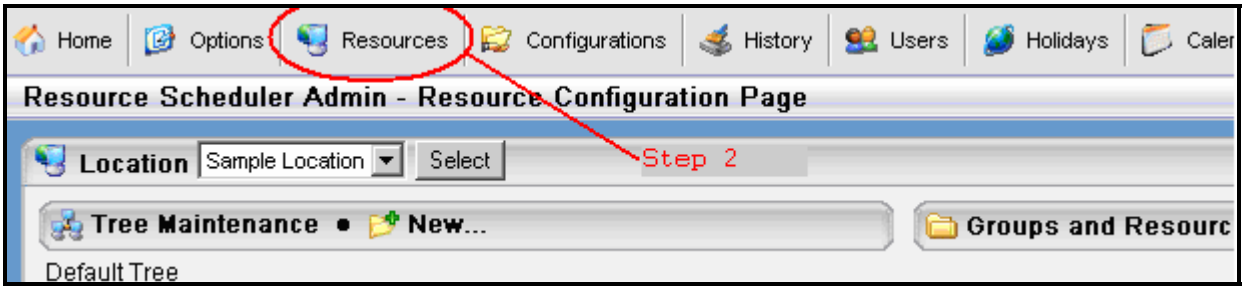
You can create locations to represent geographic locations or specific buildings within a campus-like environment. The Standard Edition of Resource Scheduler allows you to create one location. The Professional Edition allows you to create two locations. The Enterprise Editions of Resource Scheduler allow you to create many locations based on your license key. All editions of Resource Scheduler allow you to create an unlimited number of groups and resources.

Each page in Resource Scheduler Admin may have as many as three buttons: Submit, Reset, and Return. The Submit button applies the changes made in that page. The Reset button will erase any changes made before pressing the Submit button. Return will prompt you to save any changes made then will bring you to the default view for that page. For example, if you navigate to the Email Settings tab under Options and make changes, you will be prompted to save your changes when you click on the Return button and then the General Options tab will appear.

Creating a Location

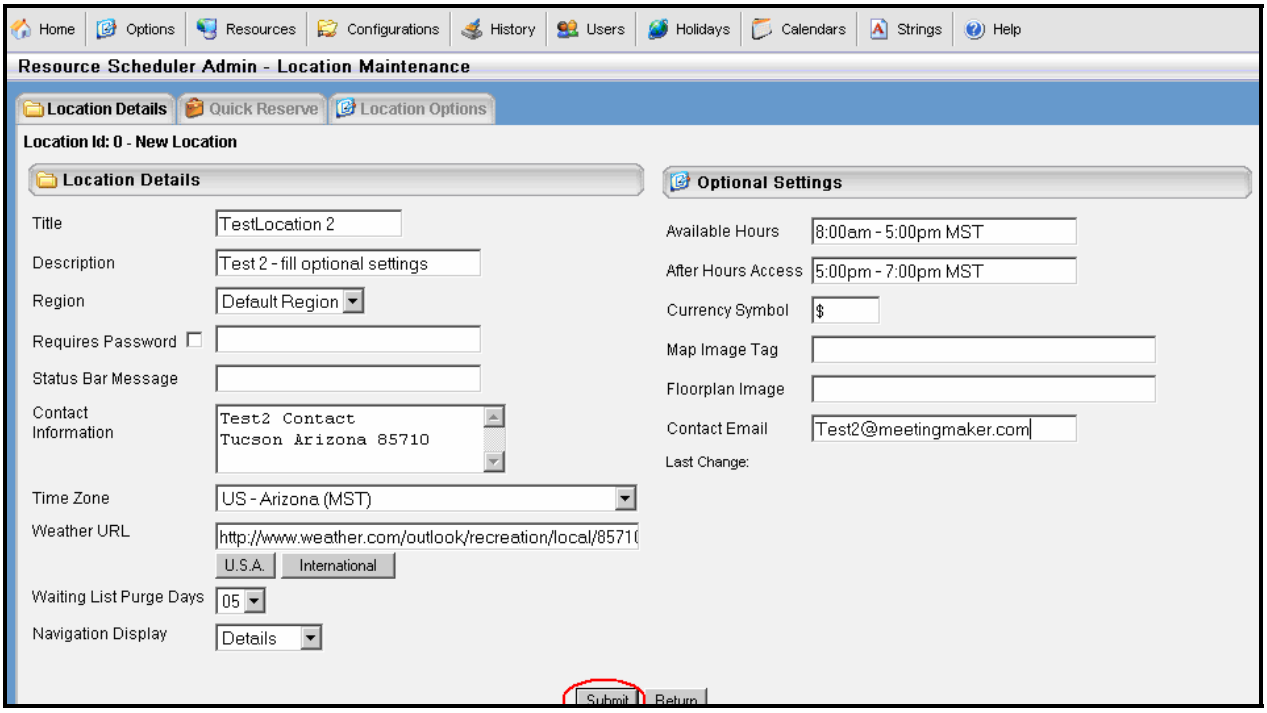
❖ **To create a location:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.



3. Click on the link **New...**
   The Location Maintenance Page appears.

4. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information on each field, please view “Location Maintenance Fields”.



5. When you have completed configuring the necessary information, click **Submit**.
   The location is created and a Location ID is assigned.

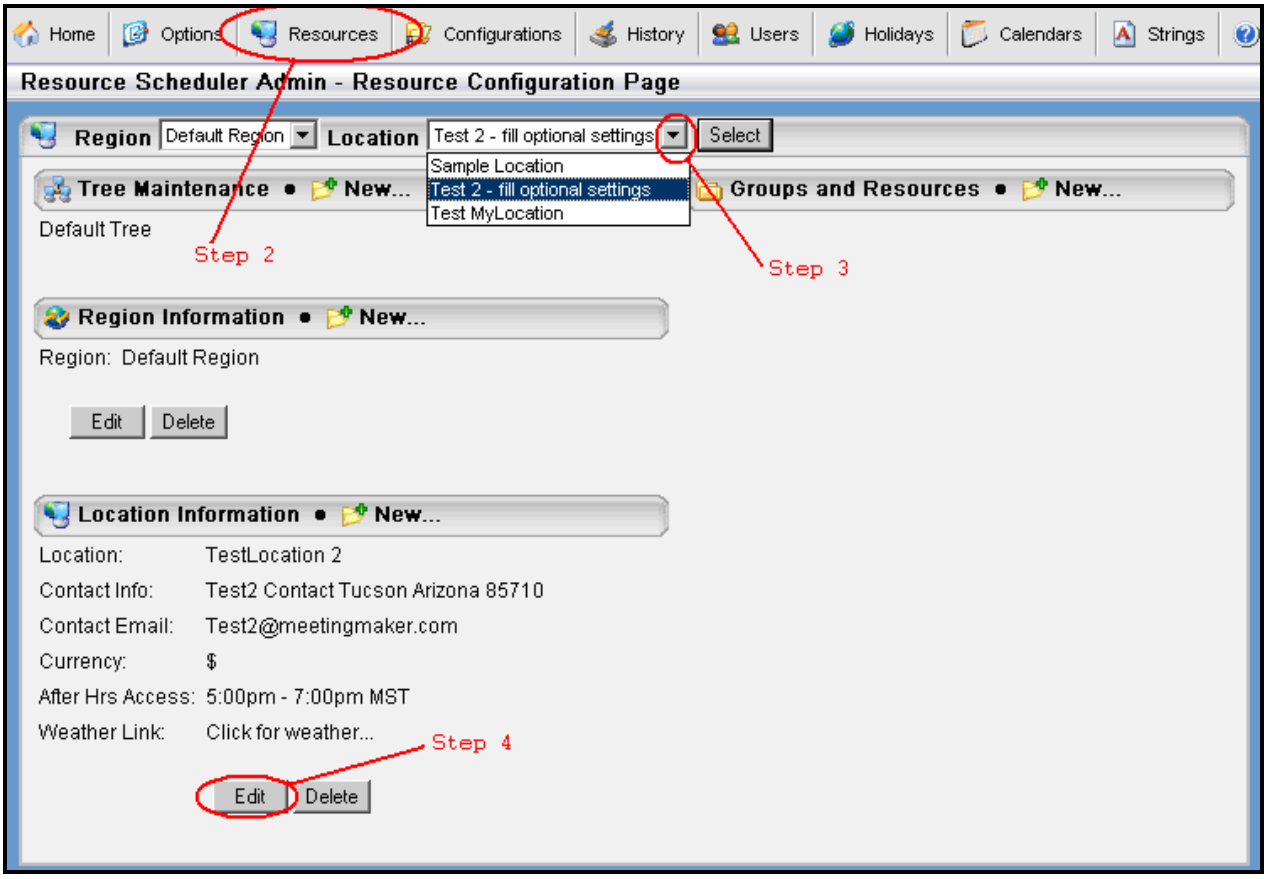
After you have initially created a location, additional options become available for you to edit. These options include Calendar Display settings, Schedule Booking Options, Search and Recurring options, and Email Text options.

Editing a Location

You can edit a location to update its information in Resource Scheduler Admin. After a location has been created, new fields are available to edit, including Calendar Display settings, Schedule Booking Options, Search and Recurring options, and Email Text options.

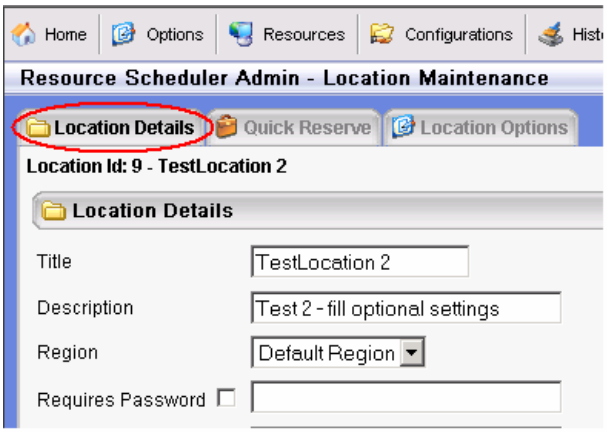
❖ **To edit a location:**

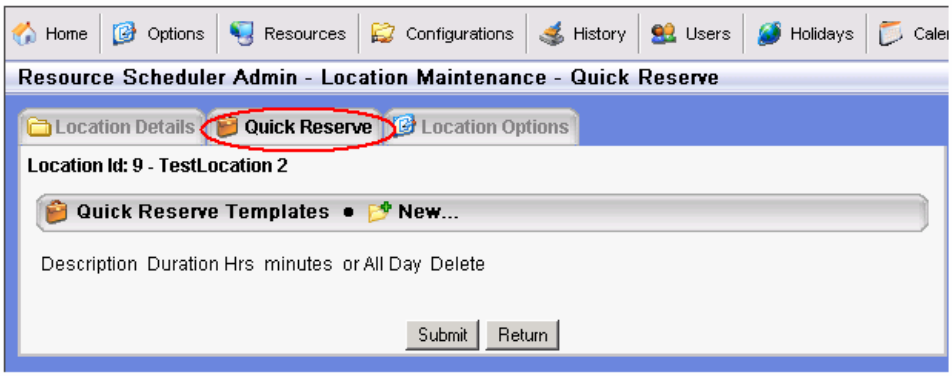
1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.

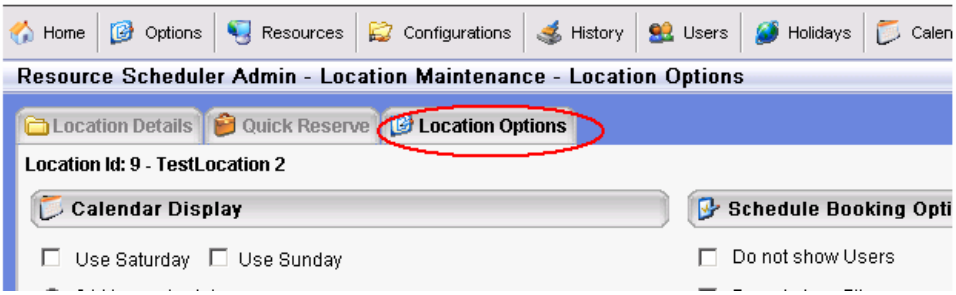


2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the location to edit and click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Location Information section, click the **Edit** button to edit this location.
   The Location Maintenance Page appears.
5. Edit the fields you wish to update or click on the **Location Details** tab to edit Location Details.

Click the **Quick Reserve** tab to use or create Quick Reserve templates. Information on Quick Reserve Templates, please see the section "Quick Reserve Templates".
Click the **Location Options** tab to further customize the location.







6. When you have completed editing the necessary information, click **Submit**.

Using the Location Admin Module

The Enterprise Edition of Resource Scheduler allows location administrators to update and manage resources for their location, without having access to other location information or system-wide settings. During installation of the Enterprise Edition, a virtual directory, `RSAdminLoc`, is created.

Any location to be accessed by a location administrator must have a password configured in the "Location Maintenance Page" for that location.

The "Requires Password" field contains two items: a checkbox and a text input field. You do not need to check the box, as the checkbox enables password protection on all reservations created with groups and resources at that location. Enabling the "Requires Password" checkbox would require users to enter a password for all reservations created with groups and resources at that location.

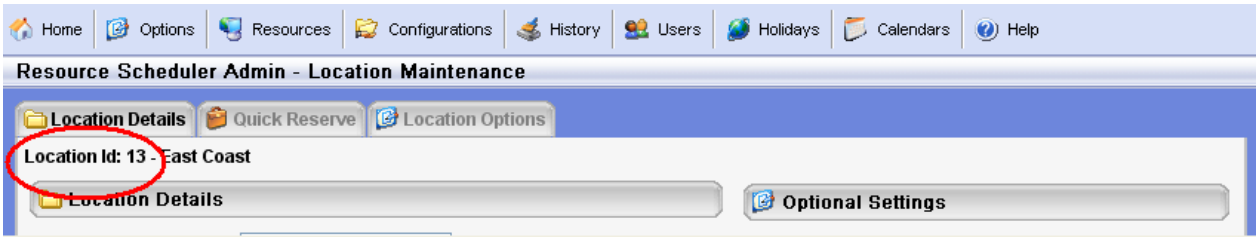
Configuring the Location Admin password

To access the Location Admin, you must first add a password to the location and make note of the Location ID number.

❖ **To configure a password for a location:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the location to edit and click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Location Information section, click the **Edit** button to edit this location.
   The Location Maintenance Page appears.
5. Enter a password in the Requires Password field.

   *You do not have to enable **Requires Password**. If you enable this option, you will activate password protection for all groups and resources within this location. To create reservations at this location with Requires Password enabled, users will need to enter the password for that location.*
6. Make note of the **Location ID:** number, located just below the tabs.



7. Click **Submit** when you are finished.

Accessing the Location Admin Module

You can allow one or more individuals to administer a single location with the Location Admin module in the Professional and Enterprise editions of Resource Scheduler. The Location Administer will not have access to general configuration options and will not have access to resources and groups within other locations.

To access the Location Admin Module, you must first identify the Location ID then form the correct URL.

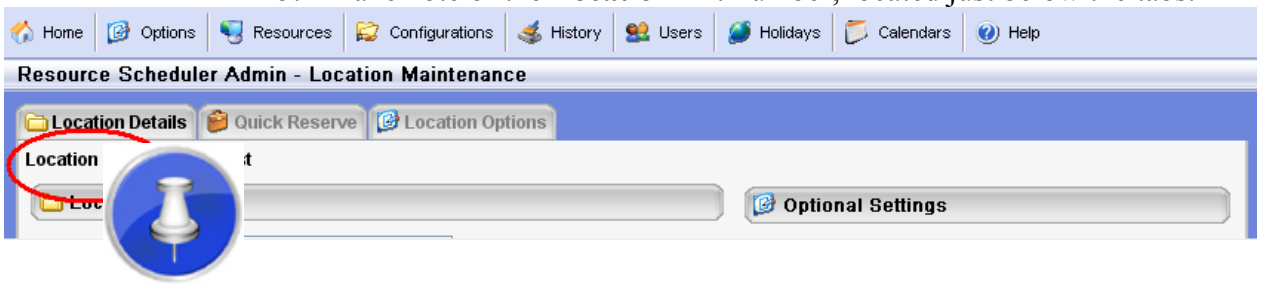
Identifying the Location ID

❖ **To identify the Location ID:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Select the location from the drop-down list and press **Select**.
   The Resource Configuration Page appears for that location.

In the browser's Address bar, the location ID is listed in the address. For example, in the address bar you may see `ResStart.asp?LocID=`**4**`&btnLoc=Select`.
The Location ID is **4**.

4. Click on the **Edit** button.
   The Location Maintenance Page appears.
5. Make note of the **Location ID:** number, located just below the tabs.



Accessing the Location Admin URL

To use the Location Admin Module, you must configure the URL to contain the Location ID of the location you wish to maintain. The Location ID is a number and can be found on the Location Maintenance page in the Resource Scheduler

Admin. You should send the proper link to the various location administrators for their location.

The URL is:
`http://`**`127.0.0.1`**`/RSAdminLoc/Default.asp?LocID=`**`XX`**
Replace 127.0.0.1 with the IP address or DNS name of your web server machine. Replace **XX** with the Location ID for that location.

For example, if the **Location ID** is **5**, the URL is:
`http://www.CompanyName.com/RSAdminLoc/Default.asp?LocID=`**`5`**

If the **Location ID** is **17**, the URL is:
`http://www.CompanyName.com/RSAdminLoc/Default.asp?LocID=`**`17`**

When the location administrator accesses this URL, they will be prompted for the password for that location. When the password is successfully entered, they will have full access to add, change or delete the groups and resources associated with that location. They will not have access to general configuration options and will not have access to resources and groups within other locations.

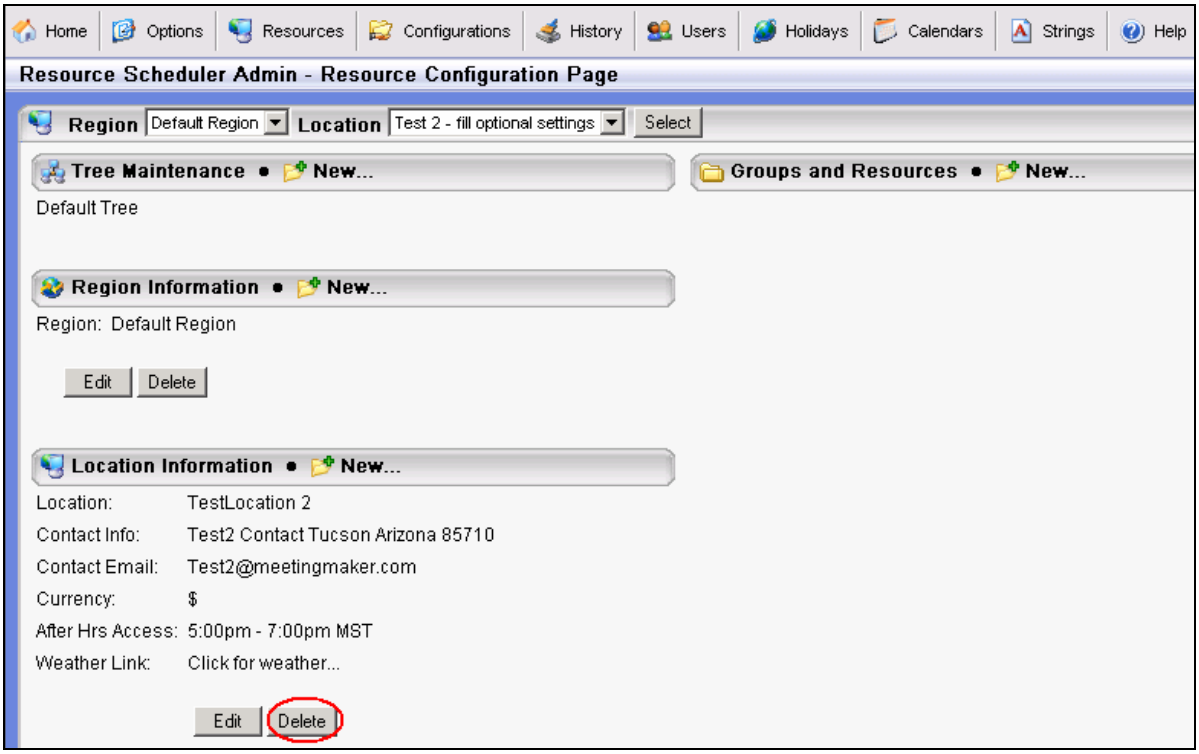
Deleting a Location

You can delete a location in Resource Scheduler Admin.

When you delete a location, all groups and resources within that location are also deleted. Before deleting a location, be sure to make a backup of your Resource Scheduler database. Proceed with caution.

❖ **To delete a location:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the location to edit and click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Location Information section, click the **Delete** button to delete this location.



A confirmation dialog appears asking to continue with the deletion.

5. Click **OK** to continue, or **Cancel** to cancel the deletion of the location and all of the groups and resources within the location.
   The location, its groups, and its resources are deleted.

Regions

You can create regions to represent geographic locations for locations, groups and resources in the Professional Edition. For example, if your organization has many locations in the United States, you may wish to create a "West Coast" Region, a "New England" Region, a "Mid-West" Region, etc.

Each page in Resource Scheduler Admin may have as many as three buttons: Submit, Reset, and Return. The Submit button applies the changes made in that page. The Reset button will erase any changes made before pressing the Submit button. Return will prompt you to save any changes made then will bring you to the default view for that page. For example, if you navigate to the Email Settings tab under Options and make changes, you will be prompted to save your changes when you click on the Return button and then the General Options tab will appear.

Creating a Region

❖ **To create a region:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Click on **New...** next to **Region Information**
   The Region Maintenance Page appears.
4. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information on each field, please view "Location Maintenance Fields".
5. When you have completed configuring the necessary information, click **Submit**.
   The region is created and a Region ID is assigned. You can now edit the region to add locations.

Adding a Location to a Region

❖ **To add a location to a region:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Select the region in the Region drop-down menu and click **Select**.
   The Region Maintenance Page appears.

4. Click on **New...** next to **Location Information**.
   A New Location page appears.
5. Enter all of the necessary information.
6. When you have completed configuring the necessary information, click **Submit** or click **Quick Reserve**, **Approvers**, or **Location Options** to further define this location.
   The location for this region is created and a Location ID is assigned.

Editing Region Information

Once you have created a region, you can edit a region to update its information in Resource Scheduler Admin or to add locations, assign approvers, etc.

❖ **To edit a region:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the region to edit. If you already have created locations for this region you can select the location to edit.
   Click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Region Information section, click the **Edit** button to edit the region information.
   The Region Maintenance Page appears.
5. Edit the fields you wish to update.
6. When you have completed editing the necessary information, click **Submit**.

Editing Location Information for a Region

Once you have created a region and a location for the region, you can edit any location to assign approvers, etc.

❖ **To edit location information for a region:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the region to edit. If you already have created locations for this region you can select the location to edit.
   Click **Select**.

The Resource Configuration Page appears with the location listed under the section Location Information.

4. Under the Region Information section, click the **Edit** button to edit the region information.
   The Region Maintenance Page appears.
5. Edit the fields you wish to update.
6. When you have completed editing the necessary information, click **Submit**.

Location Maintenance Fields

Below are a list of fields in the Location Maintenance Page and a definition for each field.

Field	Description
Location Details - Location Details Tab	
Title	Configures the title displayed in the Navigation Tree. The title field is limited to 16 characters.
Description	Configures the description for the location. The Description field is used when generating reports. The Title field is limited to 16 characters. The Description field is limited to 30 characters. This information is available to end users when they click to view the Location Information Page.
Requires Password	Configures a password for the Location Admin Module and enables password protection to create or edit any reservation at this location. The password can be up to 30 characters long. If you plan to use the Location Admin Module for local administration, then a password must be entered into this field. If you do not wish to have the location password protected for scheduling, do not check this option.
Status Bar Message	Configures the pop-up information that appears in the browser status bar when a user moves the mouse over this location in the Navigation Tree.
Contact Information	Configures a text description about the contact for the location. Common types of information are street address, phone numbers, dress code, directions. This information is available to end users when they click to view the Location Information Page.

Time Zone	Configures the time zone for that location. Users will be able to click the time zone if you have an internet connection to see the current time at that location. Reservations will be created in the time zone of the location.
Weather URL	Configures the Weather URL in the Professional and Enterprise editions. The Weather URL allows you to enter or generate a URL for users to get weather information for that location. You can enter a fully qualified URL. You can also generate a URL by clicking on one of the buttons, enter the location's postal code and click **OK**.
Waiting List Purge Days	Configures when a reservation on a wait list will automatically be removed from the wait list.

Optional Settings - Location Details Tab

Available Hours	Configures a text description of the availability of groups and resources at this location. This information is available to end users when they click to view the Location Information Page.
After Hours Access	Configures a text description of the type of access after normal business hours. Typical descriptions include "Badge-only access", "Security Code Access", etc. This information is available to end users when they click to view the Location Information Page.
Currency Symbol	Configures the display of the symbol for the local currency for the location. This symbol will be used in any reports that for resources that have a cost associated. This is for reporting purposes only. This information is available to end users when they click to view the Location Information Page.
Map Image Tag	Configures an image of a map of the location using valid HTML "IMG" (image) tag. It is recommended to place the image in the `UserData` or `Images` directory where the web application was installed. This image is displayed to end users when they click to view the Location Information Page. For more information on using an image tag, please consult the section "Customizing HTML Tags for UDFs". Example: `<img src='userdata/locmap.jpg'>`

Floorplan Image Configures an image of the floor plan or image of the location using valid HTML "IMG" (image) tag. It is recommended to place the image in the `UserData` or `Images` directory where the web application was installed. This image is displayed to end users when they click to view the Location Information Page. For more information on using an image tag, please consult the section "Customizing HTML Tags for UDFs".

Example:
```
<img src='userdata/locmap.jpg'>
```

Email Settings - Location Details Tab

Contact Email Configures the name or email address for the primary contact for the location. A typical contact person would be someone who can provide airport, hotel and driving directions for this location. This information is available to end users when they click to view the Location Information Page.

Quick Reserve Tab

Quick Reserve Templates Quick Reserve Templates are used to quickly create reservations by populating the reservation title and duration of the reservation. This is useful for organizations that schedule common tasks in a repetitive manner.

Location Options Page Fields

Below are a list of fields in the Location Options Page and a definition for each field.

Field	Description
Calendar Display Options	
24 Hour schedule, or Specific schedule	Configures the display of time for the location in either a 24-hour format or a specific format. For a 24-hour schedule, users can reserve resources around the clock. Choosing a Specific schedule and configuring the hours of the day allow you to restrict when reservations are made at this location.
Schedule Granularity	Specifies the time display units on the schedules. For example, if you selected 30 as the granularity, then all of the calendar views would show a time scale in 30-minute increments (i.e. 7:00, 7:30, and 8:00). When you set granularity, the only options for reservation times will be in those increments. If you set the granularity to be 30 minutes, the only options in the Quick Reserve section would be 00 or 30 minutes. Users could not reserve resources at 7:15 or 7:45, for example.
Allow Quick Reserve Templates	Enables the use of Quick Reserve Templates to quickly create reservations by populating the reservation title and duration of the reservation. This is useful for organizations that schedule common tasks in a repetitive manner.
Disable the Reservation Wizard	Disables the Reservation Wizard. The Reservation Wizard is an alternative way to schedule resources, instead of using the Quick Reserve feature. Some organizations do not wish their users to be presented with multiple methods for scheduling and therefore disable the Reservation Wizard. Checking this box will hide the Reservation Wizard for all locations using the default settings.
Display Required UDFs in Quick Reserve	Enables the display of required UDFs in Quick Reserve templates.
Prevent editing Reservations …	Disables the modification or deletion of a reservation within the time selected.

Schedule Booking Options

Do not show Users	Disables the appearance of the Attendees tab on the reservation detail screen for locations using default settings. Users at this location will not be able to invite guests from the Resource Scheduler list of users if this option is enabled.
Do not show Files	Disables the file attachment tab on the Reservation Detail page for locations using default settings. If you do not wish to allow users to attach files to reservations, enable this option.
Do not show Additional Resources	Disables the appearance of the Additional Resource tab in the Reservation Detail screen for locations using default settings. Users will not be able to reserve additional resources with the primary resource.
Do not show Reservation Requests	Disables the appearance of the Reservation Request tab for locations using default settings.
Do not show Quick Reserve Save	Disables the appearance of the Quick Reserve Save for locations using default settings.
Enable Catering	Enables the Catering Module, if installed. If enabled and the Catering Module installed, the Catering Module will appear for locations using the default settings. If the Catering Module is installed but you do not want all locations using the default settings to access the Catering Module, then disable this option. A Catering Tab will appear on the Reservation Detail screen when the Catering Module has been installed and enabled.

Search and Recurring

Use Saturday/ Sunday	Determines whether Saturdays or Sundays are used in searches or recurring reservations. For example, if Saturday is a valid day for reserving resources, you would select Saturday. If neither value is selected, weekend days will be ignored when searching for resource availability or when creating recurring reservations.
Allow recurring reservations	Determines whether or not you will allow end users to make recurring reservations. If selected, you must also select the maximum number of months a user can make a recurring reservation. This prevents users from creating recurring reservations extending out for years at a time.
Apply Limit to non-Recurring Schedules	Configures the recurring schedule date limit to standard schedules. That is, no scheduling after a certain date, or a rolling time period.

Email Text

Email Footer	Configures the email footer for any system generated email. Use this space to include your message. This message is for locations using the default settings. Customized footers can be attached by location, see the section regarding Locations for more information.
Email Attachment	Configures a file attachment to be included with each system generated message. This is useful for distributing forms that must be completed prior to the event date. File attachments can be of any document type, such as Word or PDF. Some firewalls and email applications will block potentially dangerous attachments, so it is not recommended to attach executables or other file types that may be blocked.

Groups

Groups serve to organize similar resources so that they can be found quickly and easily by your end users. You can define common characteristics for groups using UDFs. You can create a group of resources in Resource Scheduler after you have created and configured one location. It is not recommended to create groups before the location is created and configured. All editions of Resource Scheduler allow you to create an unlimited number of groups and resources.

Each page in Resource Scheduler Admin may have as many as three buttons: Submit, Reset, and Return. The Submit button applies the changes made in that page. The Reset button will erase any changes made before pressing the Submit button. Return will prompt you to save any changes made then will bring you to the default view for that page. For example, if you navigate to the Email Settings tab under Options and make changes, you will be prompted to save your changes when you click on the **Return** button and then the General Options tab will appear.

Creating a Group

Before you create a group, you may wish to first define Resource Characteristics (UDFs), Request Tabs, and Additional Reservation Information for a group. To define Resource Characteristics (UDFs), please see "User Defined Fields" on page 110. To define Reservation Request Tabs, please see "Reservation Request Tabs" on page 121.

❖ **To create a group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Click on the link **New...** next to "Groups and Resources".
   The Group Maintenance Page appears.
4. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information on each field, please view "Group Maintenance Fields".
5. When you have completed configuring the necessary information, click **Submit**.
   The group is created and a Group ID is assigned.

Editing a Group

You can edit a group to update its information in Resource Scheduler Admin. After a group has been created, new options may be available to edit, including Resource Characteristics, Request Tabs, and Additional Reservation Information. You must first define Resource Characteristics (UDFs), Request Tabs, and Additional Reservation Information for a group in order to edit these settings. To define Resource Characteristics (UDFs), please see "User Defined Fields". To define Reservation Request Tabs, please see "Reservation Request Tabs".

❖ **To edit a group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the Location, Group and Resource Maintenance drop-down list, select the Location in which the group had been created and click **Select**.
   The details of the location appear, including the groups and resources within the location.
4. Click on the group name.
   The Group Maintenance Page opens to the Details tab.
5. Edit the fields you wish to update in the Details tab, or click on the tab you wish to update. For detailed information on each field, please view "Group Maintenance Fields".
6. If you update a field in the Details tab then click on another tab, a confirmation appears asking if you wish to save changes. Click **OK**.
7. When you have completed editing the necessary information, click **Submit**.
   The changes are applied and you are returned to the Resource Configuration Page.

Deleting a Group

You can delete a group and all of its resources in Resource Scheduler Admin.

❖ **To delete a group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the Location, Group and Resource Maintenance drop-down list, select the Location in which the group had been created and click **Select.**
   The details of the location appear, including the groups and resources within the location.
4. Click on the Delete Group icon, , next to the group.
   A confirmation dialog appears asking to continue with the deletion.
5. Click **OK** to continue, or **Cancel** to cancel the deletion of the group and all of its resources.
   The group and all of its resources are deleted.

Group Maintenance Fields

Below are a list of fields in the Group Maintenance Page for each tab and a definition for each field. Note that some of these fields are not available when you create a group. Some fields are only available when you edit a group.

Field	Description
Group Details/Resource Details Tab	
Title	Configures the title displayed in the Navigation Tree. The title field is limited to 16 characters.
Description	Configures the description for the group. The Description field is used when generating reports. The Description field is limited to 30 characters. This information is available to end users when they click to view the group's Information Page.
Requires Password	Configures a password for the group and enables password protection to create or edit any reservation that involves a resource in this group. The password can be up to 30 characters long.
Contact Email	Configures the name or email address for the primary contact for the group. A typical contact person would be someone who can provide airport, hotel and driving directions for this location. This information is available to end users when they click to view the group's Information Page.
Status Bar Message	Configures the pop-up information that appears in the browser status bar when a user moves the mouse over this group in the Navigation Tree.
Contact Information	Configures a text description about the contact for the group. Common types of information are street address, phone numbers, dress code, directions. This information is available to end users when they click to view the group's Information Page.
Resource Characteristic Templates	
Select Template	Selects the Resource Characteristics Template to associate UDFs with resources in this group. For more information on Resource Characteristics Templates, please see the section "Resource Characteristic Templates".

Everyone Security Group Permissions

Administrator	Enables any user who belongs to this Security Group to have full administrator rights when scheduling Resources in this group.
View Admin UDFs	Enables any user who belongs to this Security Group to view User Defined Fields marked as Admin only.
Create Reservations	Enables all members of this Security Group to create reservations as they normally would in Resource Scheduler. All other Security settings, including passwords and Implied Security settings, still apply for Resources in this group.
View on Schedule	If unchecked, the schedule for this Group of Resources will not be visible to members of this Security Group. Using this feature allows private resources to be hidden from normal users, but still be available for certain individuals with appropriate rights. If a Resource Group is not viewable, then it will be removed from the Navigation Tree and the Additional Resources tab on the Schedule Detail page.

Email Settings

Contact Email	Configures the email address for the primary contact for this group. This field could also contain a name. A typical contact person would be someone who can provide information about this resource. This information is available to end users when they click to view the resource's Information Page.

Request Tabs tab

Request Tabs	Selects the Reservation Request Tab to be used for reservations with resources in this group. For more information on Reservation Request Tabs, please see the section "Reservation Request Tabs".

Resource Characteristics Tab

Resource Characteristics	Selects Resource Characteristics (UDFs) to associate with resources in this group. When you create a group, by default the list of UDFs is populated by UDFs in the Resource Characteristic Template selected. To define Resource Characteristics (UDFs), please see "User Defined Fields" on page 110.
Admin Only	Enables only a user marked as Administrator to view this UDF.
Order	Configures the position or sequence of the UDF in the list of UDFs.

Required	Specifies that the UDF is essential for resources in this group.

Reservation Prompts Tab

Reservation Prompts	Selects Resource Characteristics (UDFs) to associate with resources in this group when a user creates a reservation.
Admin Only	Enables only a user marked as Administrator to view this UDF in a Reservation Prompt.
Order	Configures the position or sequence of the UDF in the list of UDFs in a Reservation Prompt.
Required	Specifies that the UDF is essential for resources in Reservation Prompts for this group.

Resources

Resources are physical items that your end users will schedule. You create resources within a group. You can define common characteristics of resources with UDFs. You can create an unlimited number of resources.

Each page in Resource Scheduler Admin may have as many as three buttons: Submit, Reset, and Return. The Submit button applies the changes made in that page. The Reset button will erase any changes made before pressing the Submit button. Return will prompt you to save any changes made then will bring you to the default view for that page. For example, if you navigate to the Email Settings tab under Options and make changes, you will be prompted to save your changes when you click on the Return button and then the General Options tab will appear.

Creating a Resource

You create resources in Resource Scheduler Admin. After you have added a group, you can create a resource in that group. All editions of Resource Scheduler allow you to create an unlimited number of groups and resources.

❖ **To create a resource:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Under the group in which you wish to create a new resource, click on the link **Click to add resource...**
   The Resource Maintenance Page opens to the Details tab.

The link **New...** next to "Groups and Resources" is used to create a new group.

4. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information about each field, please see "Resource Maintenance Fields".
5. When you have completed configuring the necessary information, click **Submit**.
   The resource is created and a Resource ID is assigned.

Editing a Resource

You can edit a resource to update its information in Resource Scheduler Admin. After a resource has been created, additional options may be available to edit, including facilities information, Resource Characteristics, and Reservation Prompts for the resource. You may wish to first define Resource Characteristics (UDFs), Request Tabs, and Additional Reservation Information for a group in order to edit these settings. To define Resource Characteristics (UDFs), please see the section "User Defined Fields". To define Reservation Request Tabs, please see the section "Reservation Request Tabs".

❖ **To edit a resource:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Under the group that the resource is in, click on the resource name.
   The Resource Maintenance Page opens to the Details tab.
4. Edit the fields you wish to update in the Details tab, or click on the tab you wish to update. If you update a field in the Details tab then click on another tab, a confirmation appears asking if you wish to save changes. Click **OK**.
5. When you have completed editing the necessary information, click **Submit**.
   The changes are applied and you are returned to the Resource Configuration Page.

Deleting a Resource

You can delete a resource in Resource Scheduler Admin.

A resource that has been deleted will still exist in the database until you perform a database purge. For more information on performing a database purge, please refer to the section "Purging Historical Records".

❖ **To delete a resource:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Click on the Delete Resource icon, .
   A confirmation dialog appears asking to continue with the deletion.
4. Click **OK** to continue, or **Cancel** to cancel the deletion of the resource.
   The resource is deleted.

Resource Maintenance Fields

Below are a list of fields in the Resource Maintenance Page and a definition for each field.

Field	Description
Resource Details	
Title	Configures the title displayed in the Navigation Tree. The title field is limited to 16 characters.
Description	Configures the description for the resource. The Description field is used when generating reports. The Description field is limited to 30 characters. This information is available to end users when they click to view the resource's Information Page.
Location/Group	Specifies the resource within a specific group within a specific location.
Resource Type	Specifies the type of resource.
Requires Password	Configures a password for the resource and enables password protection to create or edit any reservation that involves a resource at this group. The password can be up to 30 characters long.
Status Bar Message	Configures the pop-up information that appears in the browser status bar when a user moves the mouse over this resource in the Navigation Tree.
Additional Information	Configures additional information about this resource. Users will see this information when they select the Information Icon to obtain more information about this resource.
Contact Information	Configures a text description about the contact for the resource. Common types of information are street address, phone numbers, dress code, directions. This information is available to end users when they click to view the resource's Information Page.
Optional Settings	
Display Order	Configures the position of the resource in the Resource Configuration Page. This does not affect the Navigation Tree display order of this resource for end users. To affect the display order of the resource in the Navigation Tree, please see the General Options page.
Capacity	Configures capacity of the resource, if applicable. This is used as search criteria. Set this field to 0 for items where capacity does not apply.

Cost	Configures the cost of this resource at the rate specified in the Cost Rate field. This information is used for reporting and analysis.
Cost Rate	Configures the rate at which the cost is determined. This information is used for reporting and analysis.
Max Reserve (Minutes)	Configures the maximum duration of a reservation in minutes. The reservation process will enforce this limit if it is set. Leave this at 0 if there is no maximum duration for the reservation.
Set this Resource as Inactive	Hides this resource from users. This is helpful when you do not wish to delete a resource or if you do not want users to access this resource.
Reservations require approval (Enterprise Edition only)	Enables an approval process for this resource. If a resource is marked as requiring approval, reservations made by schedule users are marked as pending approval, and the reservation must be approved by the Resource Contact or someone with Administrative rights to this resource. An email is sent to the Resource Contact notifying them that a reservation request has been made, including a link to that reservation.
Allow a Wait List for this Resource	Enables a wait list or pending approval process for this resource. Users who have requested this resource when the resource is unavailable will be notified when this resource becomes available due to a moved or deleted reservation. Email must be enabled for this option to function.
Email Settings	
Notify when utilized	Enables emails to be sent to the contact for this resource when there is any type of reservation activity. If enabled, an email will be sent to the addresses defined in the Contact Email and the Additional Email fields.
Contact Email	Configures the email address for the primary contact for this resource. This field could also contain a name. A typical contact person would be someone who can provide information about this resource. This information is available to end users when they click to view the resource's Information Page.
Additional Email	Configures an additional email address or contact name for this resource. This information is available to end users when they click to view the resource's Information Page.

Facilities Tab - Setup and Cleanup Times

Setup Time	Configures the number of minutes required before to a reservation for setup. If a Setup Time is configured, no reservation can be made during the Setup Time. To disable the Setup Time, select 0.
Cleanup Time	Configures the number of minutes required after a reservation for cleanup. If a Cleanup Time is configured, no reservation can be made during the Cleanup Time. To disable the Cleanup Time, select 0.
Setup Options	Configures the options for setup from Resource Setups that have been defined.
Resource Characteristics	Selects Resource Characteristics (UDFs) to associate with resources in this resource.

Reservation Prompts Tab

Reservation Prompts	Selects Resource Characteristics (UDFs) to associate with resources in this group when a user creates a reservation.

Combinations

Combinations are collections of two or more resources that can be reserved individually or together.

For example, you can create a combination for a room that can be partitioned. You can create a resource for each section of the room, and then create a combination that contains all sections of the room. When a user reserves the combination, the user can select the sections of the room necessary for the reservation.

You can even specify which resources associated with a combination can be reserved individually or must be reserved together. For example, in a room that has 3 partitions, A, B, and C, you can specify that the A and B partitions cannot be scheduled separately from each other.

Creating a Combination

Before you can create a combination in a group, you must create one or more resources. If you are defining sections of a room as a partition, you must create each section of the room as a resource. For information on creating a resource, please see "Creating a Resource". You may wish to create a Resource Setup before creating a combination to provide a description of the combination. For more information about a Resource Setup, please see the section "Resource Setup".

❖ **To create a combination:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Under the group in which you wish to create a new combination, click on the link **Click to add combination...**
   The Combination Maintenance Page opens to the Combination Details tab.

The link **New...** next to "Groups and Resources" is used to create a new group.

4. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information about each field, please see "Combination Maintenance Fields".

5. When you have completed configuring the necessary information, click **Submit**.
   The combination is created and a Combination ID is assigned.

Editing a Combination

Before you edit a combination in a group, you may wish to add or edit any resources or a Resource Setup. For information on creating a resource, please see "Creating a Resource". For more information about a Resource Setup, please see the section "Resource Setup".

❖ **To edit a combination:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Under the group that the combination is in, click on the combination name.
   The Combination Maintenance Page opens to the Details tab.
4. Edit the fields you wish to update in the Combination Details tab, or click on the tab you wish to update. If you update a field in the Combination Details tab then click on another tab, a confirmation appears asking if you wish to save changes. Click **OK**.
5. When you have completed editing the necessary information, click **Submit**.
   The changes are applied and you are returned to the Resource Configuration Page.

Deleting a Combination

You can delete a combination in Resource Scheduler Admin.

A combination that has been deleted will still exist in the database until you perform a database purge. For more information on performing a database purge, please refer to the section “Purging Historical Records”.

❖ **To delete a combination :**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. Click on the Delete Combination icon, .
   A confirmation dialog appears asking to continue with the deletion.
4. Click **OK** to continue, or **Cancel** to cancel the deletion of the combination.
   The combination is deleted.

Combination Maintenance Fields

Below are a list of fields in the Combination Maintenance Page and a definition for each field.

Field	Description
Combination Details Tab	
Title	Configures the title displayed in the Navigation Tree. The title field is limited to 16 characters.
Description	Configures the description for the group. The Description field is used when generating reports. The Description field is limited to 30 characters. This information is available to end users when they click to view the group's Information Page.
Location/Group	Configures the location and the group under which to create the combination.
Status Bar Message	Configures the pop-up information that appears in the browser status bar when a user moves the mouse over this group in the Navigation Tree.
Combination Resources Tab	
Select Resource	Selects the resources to associate with this combination.
Schedulable Individually?	Configures which resources associated with this combination can be reserved separately from other resources associated with this combination.
Details - Combinations Tab	
Title	Configures the title displayed in the Navigation Tree.
Capacity	Determines the capacity of the combination.
Resource Setup - Combinations Tab	
Select Resource	Includes this resource in a combination of resources.
Primary Resource	The main resource in a combination of resources.
Setup and Cleanup Times - Combinations Tab	
Setup Time	Configures the time required prior to the reservation in 0, 30, 60, or 90 minute increments to prepare for the reservation. The combination will not be available during the Setup Time.
Cleanup Time	Configures the time required prior to the reservation in 0, 30, 60, or 90 minute increments. The combination will not be available during the Cleanup Time.
Resource Setup - Combinations Tab	

Available	Configures that the Resource Setup is available.
Description	Displays a description of the Resource Setup.
Capacity	Configures the capacity for the Resource Setup.

Chapter 6: Creating and Maintaining Users

This chapter contains information about creating and maintaining users. This chapter also contains information about creating and configuring Security Groups.

Topics include:

- Overview
- The Default User
- Individual User Access
- Adding Users
- Editing Users
- Deleting Users
- Security Groups

Overview

In the Professional and Enterprise editions of Resource Scheduler, you can create and maintain users. You can create and configure users manually or you can allow users to add themselves. The Directory Services Integration Module allows you to automatically create and add user information when a new user logs in for the first time.

Enabling individual user access allows end users to personalize certain characteristics of Resource Scheduler as it appears to them. Reservations and assignments can be associated to specific users. Email can be used to notify users and contacts about schedule changes or other information. When disabled, there is no distinction between Resource Scheduler end users: Personal customization and many other options are not available.

The Standard Edition of Resource Scheduler does not allow individual users to be defined. All users are treated as the same Default User. The end user's interface cannot be individually customized.

The Default User

The Default User settings are used to define how Resource Scheduler appears to the end user in the Standard Edition of Resource Scheduler. For the Professional and Enterprise editions of Resource Scheduler, the Default User settings are used as a template for all new users, when individual user access is enabled. Standard Default User settings are configured when the application is installed.

Configuring the Default User

You can configure the Default User settings in Resource Scheduler Admin. In the Standard Edition of Resource Scheduler, these settings will affect all users. For the Professional and Enterprise editions of Resource Scheduler, these settings will be used when you create new users.

Before you modify the Default User, you must create and configure at least one location and one group.

❖ **To configure the Default User Settings:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link.
   The User Maintenance Page appears.
3. Click on the link **Configure default user account**.
   The User Settings Page appears. The User ID is 0 for the Default User.
4. Enter the appropriate information. To view information about the fields used for user settings, please consult the table "User Settings Fields" below.
5. Click **Submit** to define the Default user.
   The Default User settings are now defined.

Individual User Access

The Professional and Enterprise editions of Resource Scheduler allow individual user access. Individual user access allows users to customize Resource Scheduler as it appears to them. Users can receive email notification, assign a reservation to another user, and perform many other functions when individual user access is enabled. If you are using the Directory Services Integration Module, you must enable Individual User Access.

Enabling Individual User Access

After you have defined the Default User, you can enable individual user access in the Professional and Enterprise editions of Resource Scheduler. Before you enable individual user access, you must create and configure at least one location and one group.

❖ **To enable individual user access:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link
   The General Configuration Page opens to the General Options tab.
3. Click on the Security Controls tab.
   The Security Controls tab opens.
4. Under the User Security section, check Enable users.
5. Configure the other options as appropriate.
6. When you have completed enabling users and have enabled other settings as appropriate, click **Submit**.
   Individual user access is now enabled.

User Security Settings

Below are a list of fields in the User Security Settings Page and a definition for each field.

Field	Description
Enable users	Enables individual user access in the Professional and Enterprise editions. When enabled, end-users have options to customize characteristics of the web application as it appears to them. Reservations and assignments can be associated with specific users, and email can be used to notify users of schedule changes or other information. When disabled, there is no distinction between Resource Scheduler end users: Personal customization and many other options are not available.
Use Security Groups for Users	Enables administrators to further control access to locations and groups of resources in the Enterprise Edition. Security Groups are only available when users have been enabled in the web application. By default, individual user security is used when users are enabled.
Allow Users to specify Cookie Settings	This setting allows users control of various cookie settings.
Allow users to add themselves	Enables users to add themselves to Resource Scheduler in the Professional and Enterprise editions. This eliminates the need for administrators to add users. This is ideal if security is not an issue in your organization. Alternatively, administrators import users from a text file or other source. For more information on importing users, please see the section “Importing Users”.
Implied security for reservations	Enables only the user who created the reservation, or an administrator, to update or delete the reservation in the Enterprise Edition.
Force SSL Logins	Enables logins only when accessing Resource Scheduler through Secure Socket Layer (SSL). When enabled, users can only connect from an `https` URL.

Adding Users

The Professional and Enterprise editions of Resource Scheduler allow you to add users when individual user access is enabled. Users can customize Resource Scheduler as it appears to them. Users can receive email notification, assign a reservation to another user, and perform many other functions when individual user access is enabled.

If you are using the Directory Services Integration Module, you do not need to create individual user accounts. These accounts will be created automatically the first time a user is logged in.

Enabling Users to add themselves

After you have configured the Default User and have enabled individual user access, you can allow users to add themselves in the Professional and Enterprise editions of Resource Scheduler.

❖ **To allow users to add themselves:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link
   The General Configuration Page opens to the General Options tab.
3. Click on the Security Controls tab.
   The Security Controls tab opens.
4. Ensure that **Enable users** is checked.
5. Check **Allow users to add themselves**.
6. Click **Submit**.
   Users will now be able to add themselves.

Adding a User Manually

You can add users manually in the Professional and Enterprise editions of Resource Scheduler.

❖ **To add a user manually:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link
   The User Maintenance Page appears.
3. Click the link **New** next to User List.
   The User Settings Page appears.
4. Enter the appropriate information. For detailed information about each field, please consult "User Settings Fields" below.
5. Click **Submit** to create the user.
   The user is created and a User ID is assigned.

Adding a User via LDAP

You can add users via LDAP in the Enterprise Edition of Resource Scheduler with the Directory Services Integration Module. You can configure information for the user to be populated from LDAP. Please refer to the "Directory Services Integration Module" section for more information.

Editing a User

After a user has been created, you can edit the user in Resource Scheduler Admin.

❖ **To edit a user:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link
   The User Maintenance Page appears.
3. If the user does not appear in the User Maintenance page, click the button **Show Users**.

   The user list can display up to 1000 users. If you have more than 1000 users, you may wish to choose criteria in order to display the user.
4. Click on the name of the user you wish to edit.
   The User Maintenance Page appears for that user.

5. Edit the appropriate information. For detailed information about each field, please consult "User Settings Fields" below.
6. Click **Submit** to save changes.
   The changes to the user are saved.

Deleting a User

You can delete a user in Resource Scheduler Admin.

A user that has been deleted will still exist in the database until you perform a database purge. For more information on performing a database purge, please refer to the section "Purging Historical Records".

❖ **To delete a user:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link
   The User Maintenance Page appears.
3. If the user does not appear in the User Maintenance page, click the button **Show Users**.

The user list can display up to 1000 users. If you have more than 1000 users, you may wish to choose criteria in order to display the user.

4. Click on the Delete User icon, , next to the user.
   A confirmation dialog appears asking to continue with the deletion.
5. Click **OK** to continue, or **Cancel** to cancel the deletion of the user.
   The user is deleted.

Security Groups

The Enterprise Edition allows you to create Security Groups. Security Groups allow you to control users' access to locations, groups, and resources when individual user access is enabled. When a user is a member of a Security Group, the user inherits the permissions of that group. You can configure the Security Group to have rights to administrator, view Admin UDFs, create reservations, and prohibit the members from viewing a schedule for resources in that group.

An Everyone Security Group is created by default in the application. The permissions assigned in the Everyone group apply to all users. It is recommended that you set the lowest level of permissions to the Everyone

Security Group. That is, you may wish all users to create reservations and view schedules, but not allow all users to administer resources or to view Admin UDFs.

You can modify the Everyone Security Group at any time. After you have created locations, groups and resources and you have enabled individual user access, you can define customized Security Groups.

Configuring the Everyone Security Group

You can configure the Everyone Security Group at any time in the Resource Scheduler Admin.

❖ **To configure the Everyone Security Group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link.
   The User Maintenance Page appears.
3. In the Security Group Name section, click **Everyone**.
   The Everyone Security Group Maintenance Page appears.
4. Select the permissions for each group of resources to grant to all users.
5. When you have completed, click **Submit**.
   The User Maintenance Page appears.

Creating a Security Group

You can create a Security Group and add or remove members to a Security Group in Resource Scheduler Admin.

❖ **To create a Security Group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link.
   The User Maintenance Page appears.
3. In the Security Groups section, click **New...**.
   The Security Group Maintenance Page appears.
4. In the Description field, enter a description for the Security Group.
5. Select the permissions for each group you would like to grant to all users that belong to this group.
6. When you have completed, click **Submit**.
   The User Maintenance Page appears.

Security Group Page Fields

Below are a list of fields in the Security Group Maintenance Page and a definition for each field.

Field	Description
Administrator	Enables all members of the Security Group to have full Administrator rights to all of the resources in the group specified when they schedule resources in this group.
View Admin UDFs	Enables all members of the Security Group to view User Defined Fields marked as Admin only.
Create Reservations	Enables all members of this Security Group to create reservations. All other Security settings, including passwords and Implied Security settings, are still in effect for resources in this Group.
View on Schedule	Enables all members of this Security Group to view the schedule for this group of resources. This allows private resources to be hidden from users. If a user does not have access to view a group of resources on the schedule, the group of resources will be removed from the Navigation Tree and from the Additional Resources tab on the Schedule Detail page.

Adding and Removing members

You can assign a user to one or more Security Groups to inherit all of the rights for each group assigned. You can also remove the user from one or more Security Groups.

❖ **To add or remove members to a Security Group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link.
   The User Maintenance Page appears.
3. To assign the Default User to a Security Group, click on the link **Click to change default user settings...**. To assign an individual user to a Security Group, click on the button **Show Users** then click on the name of the user you would like to modify.
   The User Settings Page appears.
4. In the Security Options section, click on the link **Select** next to Group Based.
   The Assign Security Groups Page appears.

5. Assign the user to a Security Group by selecting the Group from the Available list on the left and clicking on **Select**. Repeat this step to assign the user to additional Security Groups.
6. You can remove the user from a Security Group by selecting the Group from the "**Selected**" list on the right and clicking on **Remove**. Repeat this step to remove the user from additional Security Groups.
7. When completed, click **Submit**.
   The User Settings Page appears.

Editing a Security Group

You can edit a Security Group in Resource Scheduler Admin.

❖ **To edit a Security Group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Users** link.
   The User Maintenance Page appears.
3. In the Security Group Name section, click on the Security Group name to edit.
   The Security Group Maintenance Page appears. Members who belong to this Security Group are listed on the left side of the page.

*You can edit a member from this list by clicking on the member's name and selecting **View User Info**.*

4. You can change the description of the Security Group in the Description field.
5. Select the permissions for each group you would like to grant to all users that belong to this group
6. When you have completed, click **Submit**.
   The User Maintenance Page appears.

Deleting a Security Group

You can delete a Security Group in Resource Scheduler Admin.

❖ **To delete a Security Group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.

2. Click on the **Users** link.
   The User Maintenance Page appears.
3. Click on the delete icon, , next to the name of the Security Group.
   A confirmation dialog appears.
4. Click **OK** to delete the Security Group or click **Cancel** to abort the deletion.
   The User Maintenance Page appears.

User Settings Fields

Below are a list of fields in the User Maintenance Page and a definition for each field.

Field	Description
Personal Information	
Name	Defines the user's name.
Email	Defines the user's email address.
Password	Defines the user's password.
Use Login Name instead of E-Mail to Login	Specifies whether to use the Login Name instead of the email address to login. Do not enable this if you are using the Directory Services Integration Module with LDAP or NTLM enabled.
Login Name	Defines the Login Name to be used in place of the user's email address when logging in to Resource Scheduler.
Phone & (ext)	Defines the user's phone number. If LDAP is enabled, this information will be obtained from the LDAP server.
Department	Defines the department name, workgroup name, or business unit of the user. The title of this field can be changed in Options. This field can not be changed by the user.
Account Code	Defines billing information for the user. The title of the field can be changed in Options. This field can not be changed by the user.
Schedule Accessibility	
Single Resource View	Restricts the user to view only a single location, group, or resource. Set to "None" to allow the user to see all locations, groups, and resources.
Update User Information	Enables the user to modify their personal settings. This does not allow users to modify their security rights.
Limited by Time Fence	If you have time fence limits set up, all users, including administrators, will not be able to schedule beyond that time fence date. If you want a user to book past that date, this box should be checked.
Generate Reports	Enables the user to run reports in the application. You should restrict the number of users who are allowed to generate reports. Users should be instructed on how to generate reports before given this option.
Deactivated User	Deactivates the user without deleting the user.

Security Options	
Administrator	Enables the user to update or delete any reservation, including password-protected items. This option is similar to Administrative Over-ride feature in the Options page
View Admin UDFs	Enables the user to view User Defined Fields used for Resource Characteristics and Reservation Details marked for administrators only. Check this box if you have resource information that should not be made public, or if you want to hide a field in the reservation form. Checking this box will allow this user to be able to see these hidden fields.
Create Reservations	Enables the user to create reservations. When the box is not checked, the Quick Reserve section of the Schedule display is removed for this user.
Group Based	Displays the Security Groups to which the user belongs. Click on the **Select** link to view all the Security Groups and modify the groups to which the user belongs. These Security Groups only apply if Group Based security is marked as active.
Application Options	
Language (Calendar)	Specifies the default interface langue for the user in the Enterprise Edition.
Country (Holidays)	Specifies the holidays to display in the user's schedule in the Enterprise Edition.
Refresh	Specifies the time interval in minutes in which the schedule display will automatically refresh for the user. Browsers do not automatically check the database to see if there is new schedule information available. If zero, the user's browser will not automatically refresh.
Allow Assignments	Enables other users to add this user to a reservation. If a user is assigned to a reservation, the user will be notified about any changes or deletion of that reservation.
Info as Popup	Enables information to appear in a popup window outside the browser when the user clicks on an information icon.
Use Cookies for Passwords	Enables cookies to store password information for secure reservations, locations, groups or resources so you do not have to re-enter them. In organizations that do not allow browsers to use cookies, this may not be available to you.

Edit Notification Emails	Enables the user to edit the system generated email before it is sent. The message is generated when the Approver approves or denies a request for a resource. Editing the notification email before it is sent allows the user to add additional information or include other addresses in the message.
Receive Reminders	Enables the user to receive reminders. If a user does not wish to receive Reminder Messages, then they can uncheck the box and reminder messages will not be generated.
Show My Favorites	Enables My Favorites to appear for the user on the navigation tree.
Show My Reservations	Enables recent reservations to appear for the user on the navigation tree.
Show My Assignments	Enables reservations assigned to the user to appear on the navigation tree.
Default Location	Specifies the default location for the user.
Default Group	Specifies the default group for the user. When the user click on the schedule without specifying any criteria, the group specified here will appear.
Default View	Specifies the view to appear by default. Choices are Day, Week, Month.
Time Format	Specifies the default time format. Choices are 12 Hour or 24 Hour.

Chapter 7: Resource Scheduler Customization

This chapter contains concepts and information you need to customize Resource Scheduler.

Topics include:

- Overview
- Resource Types
- User Defined Field Types
- User Defined Fields
- Resource Characteristic Templates
- Resource Setup
- Reservation Request Tabs
- Quick Reserve Templates

Overview

The Configurations Page is where you can customize the application by creating Resource Types, User Defined Fields, Quick Reserve Templates and Tabs. User Defined Fields describe characteristics of resources within a group or allow reservation information to be collected when a user creates a reservation. Reservation Request Tabs are a collection of User Defined Fields grouped together for a user to fill out when the user creates a reservation. Reservation Request Tabs and User Defined Fields are important tools for customizing Resource Scheduler to fit the needs of your organization.

After changes are made in the administrative settings, end users must close then restart their browser for the changes to appear. All browser windows must be closed in order to clear out the old pages, including browser windows not running Resource Scheduler.

Resource Types

A Resource Types is a label to help classify resources, such as "Computer Equipment" or "Conference Room". This is helpful when using the Reservation Wizard to find available resources.

When you create a new Resource Type, you must assign an icon with the Resource Type. The icon must be a 16x16 file in GIF format. Resource Scheduler provides icons in the `images` directory, typically `C:\inetpub\wwwroot\Rscheduler\images`.
If you do not wish to have an icon associated with the Resource Type, you must enter in `clr.gif` in the Icon File field.

Creating a Resource Type

You can create a Resource Type in Resource Scheduler Admin.

❖ **To add a Resource Type:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Resource Configuration Page appears.
3. Click on the link **Click to add a new resource type…**
   The Resource Type Maintenance Page appears.
4. In the Description field, enter a description. For example, "Computer Equipment".
5. In the Icon File field, enter the name of the icon file found in the `images` directory, or enter `clr.gif` for no icon to appear. For example, `ico_mycomp.gif`. The icon must exist in the `images` directory. Only enter the filename of the icon and not a physical or virtual path to the icon. The filename of an image should not contain a space. If the filename must contain a space, then replace the space in the filename with %20. %20 resolves to a space in HTML.
6. When you have completed configuring the necessary information, click **Submit**.
   The resource type is created and a Resource Type ID is assigned.

Editing a Resource Type

You can edit a Resource Type in Resource Scheduler Admin.

❖ **To edit a Resource Type:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Resource Configuration Page appears.
3. In the drop-down menu under Resource Types, select the resource type to edit, and then click **Edit**.
   The Resource Type Maintenance Page appears.
4. Edit the Description field or the Icon File field.
   Remember that the icon must exist in the `images` directory. Only enter the filename of the icon and not a physical or virtual path to the icon, or enter `clr.gif` for no icon to appear. For example, `ico_mycomp.gif`.
5. When you have completed configuring the necessary information, click **Submit**.
   The Resource Type is updated with the changes.

Deleting a Resource Type

You can delete a Resource Type in Resource Scheduler Admin.

❖ **To delete a Resource Type:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears
3. In the drop-down menu under Resource Types, select the Resource Type to delete, and then click **Delete**.
   A Confirmation dialog appears asking if you wish to continue with the deletion of the Resource Type.
4. Click **OK** to delete the Resource Type, or click **Cancel** to cancel the deletion.
   The Resource Type is deleted.

User Defined Field Types

A User Defined Field Type is a label to help classify the User Defined Fields (UDFs) that you create, such as "Computer Equipment". You should create a UDF Type before creating a User Define Field as you will need to assign a UDF Type to a UDF.

When you create a new UDF Type, you must assign an icon with the UDF Type. The icon must be a 16x16 file in GIF format. Resource Scheduler provides icons in the `images` directory, typically `C:\inetpub\wwwroot\Rscheduler\images`.
If you do not wish to have an icon associated with the UDF Type, you must enter in `clr.gif` in the Icon File field.

Creating a User Defined Field Type

You can create User Defined Field Type in Resource Scheduler Admin.

❖ **To create a User Define Field Type:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Resource Configuration Page appears.
3. Click on the link **Click to add a new UDF Type…**
   The UDF Type Maintenance Page appears.
4. In the Description field, enter a description. For example, "Computer Equipment".
5. In the Icon File field, enter the name of the icon file found in the `images` directory, or enter `clr.gif` for no icon to appear. For example, `ico_mycomp.gif`. The icon must exist in the `images` directory. Only enter the filename of the icon and not a physical or virtual path to the icon. The filename of an image should not contain a space. If the filename must contain a space, then replace the space in the filename with `%20`. %20 resolves to a space in HTML.
6. When you have completed configuring the necessary information, click **Submit**.
   The UDF Type is created and a UDF Type ID is assigned.

Editing a User Defined Field Type

You can edit User Defined Field Type in Resource Scheduler Admin.

❖ **To edit a User Defined Field Type:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the Configurations link.
   The Resource Configuration Page appears.
3. In the drop-down menu under User Defined Field Types, select the UDF Type to edit, and then click **Edit**.
   The UDF Type Maintenance Page appears.
4. Edit the Description field or the Icon File field.
   Remember that the icon must exist in the `images` directory, or enter `clr.gif` for no icon to appear. Only enter the filename of the icon and not a physical or virtual path to the icon. For example, `ico_mycomp.gif`.
5. When you have completed configuring the necessary information, click **Submit**.
   The UDF Type is updated with the changes.

Deleting a User Defined Field Type

You can delete User Defined Field Type in Resource Scheduler Admin.

❖ **To delete a User Defined Field Type:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears
3. In the drop-down menu under User Defined Field Types, select the UDF Type to delete, and then click **Delete**.
   A Confirmation dialog appears asking if you wish to continue with the deletion of the UDF Type.
4. Click **OK** to delete the UDF Type, or click **Cancel** to cancel the deletion.
   The UDF Type is deleted.

User Defined Fields

User Defined Fields are characteristics of a resource that appear when creating or viewing information about a group or a resource. You can define the type of

a User Defined Field as text field, long text field, checkbox, choice, display only, ODBC List, and ODBC Validated. You may also specify a Default SQL Query for each UDF. You can also define the Text/HTML to display and popup messages for new reservations. A User Defined Field is also known as a Resource Characteristic.

For example, you may wish to create a UDF called "Whiteboard Type" as a Choice type with the choices "`None;Standard;Printable`" for the UDF Type titled "Conference Room". When you create a new conference room as a "Conference Room" UDF Type, you can specify "None, Standard, or Printable" for the "Whiteboard Type" under Resource Characteristics. When a user views detailed information about that conference room, the UDF "Whiteboard Type" will indicate the type of whiteboard: None, Standard, or Printable.

User Defined Fields are grouped together by type, such as A/V Equipment, only for displaying an icon next to the User Defined Fields. Tabs and Templates can contain User Defined Fields from multiple UDF types and are used for creating pre-defined characteristics when adding multiple resources to a group.

Creating a User Defined Field

Before you define a UDF, you must first define a UDF Type. Common User Defined Fields are pre-defined in the application. You can add, edit, or delete UDFs to fit your company's needs. If you have a limited number of resources, you may wish to delete unused UDFs in order to simplify some of the Group and Resource Configuration pages, as there are fewer options from which to select.

❖ **To define a User Defined Field:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Resource Configuration Page appears.
3. Create or configure a UDF Type, if necessary. For more information on creating or configuring a UDF Type, please refer to the section "User Defined Field Types".
4. Click on the link **Click to add a new user defined field...**
   The UDF Maintenance Page appears.
5. Enter a description in the Description field.
6. Select the UDF Type in the Type field.
7. Enter a Default Query SQL, if necessary.
8. Select a UDF Field Type, and configure if necessary. For information about each UDF Field Type, please refer to "UDF Field Types" below.

9. When you have completed creating the User Defined Field, click **Submit**.

Editing a User Defined Field

After you have created a User Defined Field, you can edit it. You cannot change the UDF Field Type by editing. To change the UDF Field Type you must delete the User Defined Field and create a new one.

❖ **To edit a User Defined Field:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Resource Configuration Page appears.
3. Create or configure a UDF Type, if necessary. For more information on creating or configuring a UDF Type, please refer to the section "User Defined Field Types".
4. In the section User Defined Fields, select the User Defined Field to edit.
5. Click on the **Edit** button.
   The UDF Maintenance Page appears.
6. Change description in the Description field.
7. Change the type in the Type field.
8. Change the Default Query SQL, if necessary.
9. When you have completed editing the User Defined Field, click **Submit**.
   The Configurations Page appears.

Deleting a User Defined Field

You can delete a User Defined Field Type.

❖ **To delete a User Defined Field:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Resource Configuration Page appears.
3. In the section User Defined Fields, select the User Defined Field to delete.
4. Click on the **Delete** button.
   A confirmation dialog appears.

5. Click **OK** to delete the User Defined Field, or click **Cancel** to abort the deletion of the User Defined Field.

UDF Field Types

Below are descriptions for each UDF Field Type.

UDF Field Type	Description
Text	Select Text type to enter a single line of text when you define the resource characteristics.
Long Text	Select Long Text type to allow multiple lines of text when you define the resource characteristics.
Checkbox	Select Checkbox when you desire a "Yes/No" or "True/False" response when you define the resource characteristics.
Choice	Select Choice when you wish to display a drop-down selection list to restrict the choices to what you have defined here. Separate each item in the list with a semi-colon, "**;**". For example, select Choice for "Whiteboard Type" and set the list values as: `None;Standard;Printable`
Display only	Select Display Only when you wish to define information to display for each resource without having to enter the information for every resource. You may enter HTML tags in this field. An example would be a contact email address or a link to a floor map. When used at the reservation detail level, the display only field is most commonly used to display an image or hyperlink. A Display Only field must be used in these instances, as a normal text field will only prompt a user for information and does not allow the input of text or HTML by the administrator

ODBC List	Select ODBC List to create a list of items generated from a SQL query.
	
	For example:
	Default Query SQL:
	`SELECT user_email FROM tbl_user WHERE user_id='#USER#'`
	
	Enter connection string:
	`Provider=SQLOLEDB; Data Source=RSSERVER; Initial Catalog=RedESoft; User ID=RedESoft; Password=1234567`
	
	Enter SQL statement:
	`SELECT '<option value="' + user_name + '">' + user_name + '</option>' FROM tbl_user`

ODBC Validated Select ODBC Validated to create a drop-down list of items generated from a SQL query that will be validated against the results of the ODBC query specified.

For example:

Default Query SQL:

```
SELECT user_email FROM tbl_user WHERE user_id='#USER#'
```

Enter connection string:

```
Provider=SQLOLEDB; Data Source=RSSERVER; Initial
Catalog=RedESoft; User ID=RedESoft; Password=1234567
```

Enter SQL for Validation:

```
select user_name from tbl_user where user_name = %1
```

Enter SQL statement:

```
SELECT user_name as 'Name', user_email as 'Email
Address', user_phone as 'Phone Number' FROM tbl_user
WHERE user_name LIKE '%1'
```

Resource Characteristic Templates

Resource Characteristic Templates are a collection of User Defined Fields (UDFs) used for resource characteristics. Templates are an easy way to group together specific User Defined Fields so that you can quickly assign these characteristics to a new group of resources. Templates are especially useful when you want resource characteristics to be consistent across multiple groups.

Templates are only used for the creation of resource characteristics and should not contain UDFs intended for use at the reservation detail level. There is no connection between Templates and User Defined Field types, other than a template is a collection of User Defined Fields.

You can select a template when you create a new group: All the UDFs in the template will automatically be added as resource characteristics to the new group. Templates can contain User Defined Fields from several UDF Types.

Creating a Resource Characteristic Template

You can create a template in Resource Scheduler Admin. Before you create a template, you may wish to add or configure User Defined Field Types or User Defined Fields. For more information, please see "User Defined Field Types" or "User Defined Fields".

❖ **To create a Resource Characteristic template:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Click on the link **Click to add a new template...**
   The Template Maintenance Page appears.
4. Enter a name for the template in the field Enter new template name.
5. Click **Submit**.
   The Configurations Page appears.
6. To configure the new template, follow the steps listed in "Editing a template".

Associating a Resource Characteristic with a Group

You can associate a Resource Characteristic with a group. All resources within this group will contain this Resource Characteristic.

❖ **To associate a Resource Characteristic with a group:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the Location, Group and Resource Maintenance drop-down list, select the Location in which the group had been created and click **Select**.
   The details of the location appear, including the groups and resources within the location.
4. Click on the group name.
   The Group Maintenance Page opens to the Details tab
5. Click on the **Resource Characteristics** tab.
   The Group Maintenance - Resource Characteristics page appears.
6. Click the **Select** button.
   The Group Maintenance - Resource Characteristics Page displays the available UDFs in the Available list.
7. Select the UDFs to associate from the Available list and click **Select**.
   The selected UDF moves from the Available column to the Selected column.
8. To remove a UDF, select the UDF from the Selected list and click **Remove**.
9. When you have completed, click on the **Submit** button.
   The Group Maintenance Page opens to the Resource Characteristics tab.
10. Click **Submit** to save your changes.

Editing and applying a Resource Characteristic Template

You can edit a template in Resource Scheduler Admin. You can also apply a template to an existing location, group, or resource.

Before you edit a template or apply a template, you may wish to add or configure User Defined Field Types or User Defined Fields. For more information, please see User Defined Field Types or User Defined Fields.

Editing a Resource Characteristic Template

❖ **To edit a template:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Add or configure User Defined Field Types or User Defined Fields, if necessary. For more information, please see User Defined Field Types or User Defined Fields.
4. Choose the template to edit in the drop-down list.
5. Click **Edit**.
   The Template Maintenance Page appears.
6. To add a UDF to the template, select the UDF in the Available column and choose **Select**.
7. To remove a UDF to the template, select the UDF in the Selected column and choose **Remove**.
8. When complete, click the **Submit** button.

Applying a Resource Characteristic Template

❖ **To apply a template to a location, a group or a resource:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.

3. Add or configure User Defined Field Types or User Defined Fields, if necessary. For more information, please see User Defined Field Types or User Defined Fields.
4. Choose the template to edit in the drop-down list.
5. Click **Edit**.
   The Template Maintenance Page appears.
6. To add a UDF to the template, if necessary, select the UDF in the Available column and choose **Select**.
7. To remove a UDF to the template, if necessary, select the UDF in the "Selected" column and choose **Remove**.
8. When complete, click the **Apply Template** button.
   The Apply a Template Page appears.
9. Select the group or groups to which to apply the template and click **Select**.
10. Click **Submit**.
    The Configurations Page appears.

Deleting a Resource Characteristic Template

You can delete a Resource Characteristic template in Resource Scheduler Admin. Deleting a template has no affect on the User Defined Fields associated with it or the Groups to which it had been previously applied.

❖ **To delete a template:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Choose the template to delete in the drop-down list.
4. Click **Delete**.
   A confirmation dialog appears asking if you wish to delete the template.
5. Click **OK** to delete the template, or click **Cancel** to abort the deletion of the template.
   The template is deleted and the Configuration Page appears

Resource Setup

The Resource Setup in the Configurations Page allows you to create descriptions of a set of resources or combinations that will appear in the Facilities tab of the Resource Configuration page or in the Combination Tab for combinations.

For example, you may wish to create a Resource Setup for U-shaped rooms or for rooms that resemble a theatre. When you create or edit a resource or a combination, this description will appear in the Facilities tab or the Combination tab where you can select the style of the resource its capacity, if applicable, and whether to enforce the limit.

You can associate a 16x16 image in GIF format to that Resource Setup type.

Creating a Resource Setup

You can create a Resource Setup in Resource Scheduler Admin.

❖ **To create a Resource Setup:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Click on the link **Click to add a new resource setup...**
   The Resource Setup Maintenance Page appears.
4. In the description field, enter a description.
5. In the Image Path field, enter the filename of the image to use from the images directory, if desired.
6. Click **Submit**.
   The Resource Setup is created and the Configuration Page appears.

Editing a Resource Setup

You can edit a Resource Setup in Resource Scheduler Admin.

❖ **To edit a Resource Setup:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Choose the Resource Setup to edit in the drop-down list.
4. Click **Edit**.
   The Resource Setup Maintenance Page appears.
5. Change the description in the Description field, or change the image associated with the Resource Setup in the Image Path field.
6. When completed, click **Submit**.
   The changes are applied and the Configurations Page appears.

Deleting a Resource Setup

You can delete a Resource Setup in Resource Scheduler Admin.

❖ **To delete a Resource Setup:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Choose the Resource Setup to edit in the drop-down list.
4. Click **Delete**.
   A confirmation dialog appears.
5. Click **OK** to delete the Resource Setup, or click **Cancel** to cancel the deletion.
   The Resource Setup is deleted and the Configurations Page appears.

Reservation Request Tabs

Reservation Request Tabs allow you to gather information from users when they make a reservation. When a user makes a reservation with a resource within a group that contains Reservation Request Tabs, an additional tab will appear with UDFs that you have defined, such as items, options, and notes for the resource. Request Tabs use the same User Defined Fields as used with Resource Characteristics and Reservation Information.

Reservation Request Tabs work well for initiating workflow or for notifying an individual or a department that a request that has been made for a reservation. The notification will include all of the items requested.

For example, you may wish to create an "A/V Equipment" tab that contains checkboxes for UDFs such as wireless microphone, VHS player, DVD player, Projection screen, and text fields for Video Equipment Notes. When a user makes a reservation that includes a resource in a group with an "A/V Equipment" tab associated, the user can request items listed and provide additional notes to the contact of the Request Tab. If an item is requested, an email will be sent to the contact of the Request Tab with the details of the request to the contact's email address.

You can select whether the user must complete a UDF within the Reservation Request Tab.

You can associate an icon to the Request Tab. You can provide an additional contact that will also be notified by email when an item is requested. You can provide additional information in a header or footer. The text within the header or footer can be either text or HTML.

Users can generate reports for all the requests made for a specific Request Tab.

Creating a Reservation Request Tab

You can create and configure a Reservation Request Tab in Resource Scheduler Admin. Before creating and configuring a Reservation Request Tab, you should create or configure User Defined Field Types or User Defined Fields. After creating and configuring a Reservation Request Tab, you can add the Reservation Request Tab to all the resources within a group.

❖ **To create a Reservation Request Tab:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Add or configure User Defined Field Types or User Defined Fields, if necessary. For more information, please see User Defined Field Types or User Defined Fields.
4. Under Reservation Request Tabs, click on the link **Click to add a new request tab...**
   The Request Tab Maintenance Page appears.
5. Enter a title in the Title field.
   The Title can have a maximum of 20 characters.
6. Enter a description in the Description field.
7. Enter the name of an image file in the Icon File field.
   If you do not wish to have an icon associated with the Request Tab, you must enter in `clr.gif` in the Icon File field. It is highly recommended to have an image associated with a Request Tab.
8. Enter the email of the contact in the Contact Email field.
9. If you would like the contact to be emailed when the Resource Request Tab is used, enable the checkbox **Notify when utilized**.
10. Enter the email of an additional contact in the Additional Email field.
11. Enter the header for the page in the Page Header field.
12. Enter the footer for the page in the Page Footer field.
13. Click **Submit** if you do not wish to add any UDFs to the Request Tab, or click **Select** next to Request Tab Options to add UDFs to the Request Tab..
    If you pressed **Submit**, the Configurations Page appears.
    If you pressed **Select**, the Request Tab Maintenance - Request Fields Page appears
14. To add a UDF to the Request Tab, select the UDF in the Available column and choose Select.

15. To remove a UDF to the Request Tab, select the UDF in the Selected column and choose Remove.
16. When complete, click the **Submit** button.
    The Request Tab Maintenance Page appears.
17. Each UDF selected is listed under Request Tab Options.
18. Select **Admin Only** if you want that UDF to be available to users with the ability to view Admin UDFs.
19. Change the sorting or display order of the UDF in the Order field, if desired. A lower number will display the UDF in a higher position than a higher number.
20. If this UDF is required, check the "Required" box.
21. When you have completed making the changes, click the **Submit** button.
    The Configurations Page appears.
22. Associate the Reservation Request Tab to a group.

Associating a Reservation Request Tab with a Group

In order for a Request Tab to appear for reservations with resources in a group, you must associate a Reservation Request Tab with a group in Resource Scheduler Admin.

❖ **To associate a Reservation Request Tab:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the Location, Group and Resource Maintenance drop-down list, select the Location in which the group had been created and click **Select**.
   The details of the location appear, including the groups and resources within the location.
4. Click on the group name.
   The Group Maintenance Page opens to the Details tab.
5. Click on **Requests Tab**.
   The Requests Tab opens.
6. Click on the **Select** button next to Request Tabs.
   The Group Maintenance - Select Request Tabs Page appears.
7. Select the Request Tab from the Available list and click **Select**.
   The selected Request Tab moves from the Available list to the Selected list.

8. To remove a Request Tab, select the Request Tab from the Selected list and click **Remove**.
9. When you have completed, click on the **Submit** button.
   The Group Maintenance Page opens to the Request Tab.
10. Click **Submit** to save your changes.

Editing a Reservation Request Tab

You can edit a Reservation Request Tab in Resource Scheduler Admin.

❖ **To edit a Reservation Request Tab:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Add or configure User Defined Field Types or User Defined Fields, if necessary. For more information, please see User Defined Field Types or User Defined Fields.
4. Under Reservation Request Tabs, select the Reservation Request Tab to edit from the drop-down list and click **Edit**.
   The Request Tab Maintenance Page appears.
5. Edit the fields necessary.
6. Click the **Select** button to edit the Request Tab Options, or click **Submit** if you have completed making the necessary changes.
7. To add a UDF to the Request Tab, select the UDF in the Available column and choose Select.
8. To remove a UDF to the Request Tab, select the UDF in the Selected column and choose Remove.
9. When complete, click the **Submit** button.
   The Request Tab Maintenance Page appears.
10. Click the Submit button again.
    The Configurations Page appears.

Deleting a Reservation Request Tab

You can delete a Reservation Request Tab in Resource Scheduler Admin.

❖ **To delete a Reservation Request Tab:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.

2. Click on the **Configurations** link.
   The Configuration Page appears.
3. Under Reservation Request Tabs, select the Reservation Request Tab to delete from the drop-down list.
4. Click **Delete**.
   A confirmation dialog appears asking if you wish to delete the Reservation Request Tab.
5. Click **OK** to delete the Reservation Request Tab, or click **Cancel** to abort the deletion of the Reservation Request Tab.
   The Reservation Request Tab is deleted and the Configuration Page appears.

Quick Reserve Templates

You can manage Quick Reserve Templates in the Location Maintenance pages of Resource Scheduler Admin. Quick Reserve Templates allow standard types of reservations to be entered with fewer mouse clicks. These templates are most commonly used by organizations that schedule people or resources for appointments that require a standard amount of time, such as a haircut or massage.

Quick Reserve Templates are displayed in the Quick Reserve section of Resource Scheduler and will automatically fill in the reservation description and the appropriate end time for the start time requested. The Quick Reserve Templates are unique by location.

Creating a Quick Reserve Template

You can create a Quick Reserve Template in Resource Scheduler Admin.

❖ **To create a Quick Reserve Template:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the location to edit and click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Location Information section, click the **Edit** button to edit this location.
   The Location Maintenance Page opens to the Location Details tab.
5. Click on the **Quick Reserve** tab.
   The Quick Reserve tab appears.
6. Click on the link **New...**
   Fields appear to configure the new Quick Reserve Template.
7. Enter a description in the Description field.
8. In the Duration drop-down menus, select hours and minutes of the duration, or choose All Day for the duration to be all day.
9. Click **Submit** when you are done.
   The Quick Reserve Template is created and the Quick Reserve tab appears.

Editing a Quick Reserve Template

You can edit a Quick Reserve Template in Resource Scheduler Admin.

❖ **To edit a Quick Reserve Template:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the location to edit and click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Location Information section, click the **Edit** button to edit this location.
   The Location Maintenance Page opens to the Location Details tab.
5. Click on the **Quick Reserve** tab.
   The Quick Reserve tab appears.
6. Click on **Quick Reserve Template** to edit.
   Fields appear to configure the Quick Reserve Template.
7. Modify the description in the Description field.
8. Modify the duration using the Duration drop-down menus. Select hours and minutes of the duration, or choose All Day for the duration to be all day.
9. Click **Submit** when you are done.
   The Quick Reserve Template is modified and the Quick Reserve tab appears.

Deleting a Quick Reserve Template

You can delete a Quick Reserve Template in Resource Scheduler Admin.

❖ **To delete a Quick Reserve Template:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Resources** link.
   The Resource Configuration Page appears.
3. In the location drop-down list, select the location to edit and click **Select**.
   The Resource Configuration Page appears with the location listed under the section Location Information.
4. Under the Location Information section, click the **Edit** button to edit this location.
   The Location Maintenance Page opens to the Location Details tab.
5. Click on the **Quick Reserve** tab.
   The Quick Reserve tab appears.
6. Click on the Delete Quick Reserve Template icon, , next to the Quick Reserve Template.
   A confirmation dialog appears asking to continue with the deletion.
7. Click **OK** to continue, or **Cancel** to cancel the deletion of the Quick Reserve Template.
   The Quick Reserve Template is deleted.

Wait List and Pending Approval

When you create a resource, you can specify a wait list for a resource in the Professional and Enterprise Editions. Users who have requested a resource specified as on a wait list will be notified when this resource becomes available, if the resource is not available at the time that the reservation is created.

In the Enterprise Edition, you can also specify an approval process for a resource. When an approval process for a resource is enabled, if a resource is marked as requiring approval, reservations made by schedule users are marked as pending approval, and the reservation must be approved by the Resource Contact or someone with Administrative rights to this resource. An email is sent to the Resource Contact notifying them that a reservation request has been made, including a link to that reservation.

Email must be enabled for either a wait list or a pending approval process to function.

Configuring a Wait List for a Resource

In the Professional and Enterprise Editions, you can specify a wait list for a resource. If a resource allows for a wait list, if the resource is not available when a user creates a reservation, the reservation request for the resource will be placed on a wait list. If the resource becomes available, the user will be notified that resource is now available and reserved for their reservation. While a resource is on a wait list for a reservation, the user can cancel their reservation and request a new resource that is available, or they can wait to see if the resource will become available.

Configuring a Wait List for a New Resource

❖ **To configure a wait list for a new resource:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link.
   The Resource Scheduler Admin - General Configuration page appears.
3. Click on the **Email Settings** tab.
   The EMail Integration page appears.
4. Enable **Allow user EMail notification**.
5. In the **Mail server** field, enter the IP address or DNS name of your email server. For example: `smtp.yourcompany.com`
6. In the **Sender's EMail address** field, enter the email address from which email notification will be sent. For example: `RSNotify@yourcompany.com`
7. In the **Alternate Server** field, enter the IP address or DNS name of your alternative or backup email server, if applicable. For example: `smtp2.yourcompany.com`
8. You may configure additional settings in the **EMail Options** section. For more information on the Email Setting tab, please see "Email Settings Tab" on page 52.
9. Click the **Submit** button when you are done.
10. Click on the **Resources** link.
    The Resource Configuration Page appears.
11. Under the group in which you wish to create a new resource, click on the link **Click to add resource...**
    The Resource Maintenance Page opens to the Details tab.

The link **New...** next to "Groups and Resources" is used to create a new group.

12. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information about each field, please see "Resource Maintenance Fields".
13. In the Optional Settings section, enable **Allow a Wait List for this Resource**.
14. When you have completed configuring the necessary information, click **Submit**.
    The resource is created and a Resource ID is assigned.

For information on editing a resource, please see "Editing a Resource" on page 82.

Configuring a Wait List for an Existing Resource

❖ **To configure a wait list for an existing resource:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link.
   The Resource Scheduler Admin - General Configuration page appears.
3. Click on the **Email Settings** tab.
   The EMail Integration page appears.
4. Enable **Allow user EMail notification**.
5. In the **Mail server** field, enter the IP address or DNS name of your email server. For example: `smtp.yourcompany.com`
6. In the **Sender's EMail address** field, enter the email address from which email notification will be sent. For example: `RSNotify@yourcompany.com`
7. In the **Alternate Server** field, enter the IP address or DNS name of your alternative or backup email server, if applicable. For example: `smtp2.yourcompany.com`
8. You may configure additional settings in the **EMail Options** section. For more information on the Email Setting tab, please see "Email Settings Tab" on page 52.
9. Click the Submit button when you are done.
10. Click on the **Resources** link.
    The Resource Configuration Page appears.
11. Under the group that the resource is in, click on the resource name.
    The Resource Maintenance Page opens to the Details tab.

12. Edit the fields you wish to update in the Details tab, or click on the tab you wish to update. If you update a field in the Details tab then click on another tab, a confirmation appears asking if you wish to save changes. For detailed information about each field, please see "Resource Maintenance Fields".
13. In the Optional Settings section, enable **Allow a Wait List for this Resource**.
14. When you have completed configuring the necessary information, click **Submit**.
    The resource is created and a Resource ID is assigned.

For information on editing a resource, please see "Editing a Resource" on page 82.

Configuring a Pending Approval Process for a Resource

In the Enterprise Edition, you can specify an approval process for a resource. When a reservation for a resource requires approval, reservations are initially marked as pending approval. The reservation request must be approved by the Resource Contact or someone with Administrative rights to this resource. An email is sent to the Resource Contact notifying them that a reservation request has been made, including a link to that reservation.

In order to create or configure a resource to require approval, you must configure the following before proceeding:

- Configure email settings, page 52.
- Enable Individual User Access, page 94.
- Add Users, page 96.
- Create or configure a resource or location to require approval, below.

Configuring a Pending Approval Process for a New Resource

❖ **To configure a new resource to require approval:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link.
   The Resource Scheduler Admin - General Configuration page appears.
3. Click on the **Email Settings** tab.
   The EMail Integration page appears.
4. Enable **Allow user EMail notification**.

5. In the **Mail server** field, enter the IP address or DNS name of your email server. For example: `smtp.yourcompany.com`
6. In the **Sender's EMail address** field, enter the email address from which email notification will be sent. For example: `RSNotify@yourcompany.com`
7. In the **Alternate Server** field, enter the IP address or DNS name of your alternative or backup email server, if applicable. For example: `smtp2.yourcompany.com`
8. You may configure additional settings in the **EMail Options** section. For more information on the Email Setting tab, please see "Email Settings Tab" on page 52.
9. Click the **Submit** button when you are done.
10. Click on the **Resources** link.
    The Resource Configuration Page appears.
11. Under the group in which you wish to create a new resource, click on the link **Click to add resource...**
    The Resource Maintenance Page opens to the Details tab.

The link **New...** next to "Groups and Resources" is used to create a new group.

12. Enter a title, a description, and any appropriate information. The Title and Description fields are required. For detailed information about each field, please see "Resource Maintenance Fields".
13. In the Optional Settings section, enable **Reservations require approval**.
14. When you have completed configuring the necessary information, click the **Resource Approvers** tab.
    The resource is created, a Resource ID is assigned, and the Resource Level Security page appears for the resource.
15. In the Add Approvers section, select the display type and click on the **Show Users** button.
    A list of the users appears.
16. Click on the green arrow button, , next to the user to add the user as an Approver.
17. Repeat this process to add any additional users as an Approver.
18. Click on the **Return** button and then the **Submit** button to save your changes.

For information on editing a resource, please see “Editing a Resource” on page 82.

Configuring a Wait List for an Existing Resource

❖ **To configure an existing resource to require approval:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link.
   The Resource Scheduler Admin - General Configuration page appears.
3. Click on the **Email Settings** tab.
   The EMail Integration page appears.
4. Enable **Allow user EMail notification**.
5. In the **Mail server** field, enter the IP address or DNS name of your email server. For example: `smtp.yourcompany.com`
6. In the **Sender's EMail address** field, enter the email address from which email notification will be sent. For example: `RSNotify@yourcompany.com`
7. In the **Alternate Server** field, enter the IP address or DNS name of your alternative or backup email server, if applicable. For example: `smtp2.yourcompany.com`
8. You may configure additional settings in the **EMail Options** section. For more information on the Email Setting tab, please see “Email Settings Tab” on page 52.
9. Click the Submit button when you are done.
10. Click on the **Resources** link.
    The Resource Configuration Page appears.
11. Under the group that the resource is in, click on the resource name.
    The Resource Maintenance Page opens to the Details tab.
12. Edit the fields you wish to update in the Details tab, or click on the tab you wish to update. If you update a field in the Details tab then click on another tab, a confirmation appears asking if you wish to save changes. For detailed information about each field, please see “Resource Maintenance Fields”.
13. In the Optional Settings section, enable **Reservations require approval**.
14. When you have completed configuring the necessary information, click the **Resource Approvers** tab.
    The resource is created, a Resource ID is assigned, and the Resource Level Security page appears for the resource.

15. In the Add Approvers section, select the display type and click on the **Show Users** button.
    A list of the users appears.
16. Click on the green arrow button, , next to the user to add the user as an Approver.
17. Repeat this process to add any additional users as an Approver.
18. Click on the **Return** button and then the **Submit** button to save your changes.

For information on editing a resource, please see "Editing a Resource" on page 82.

Approving or Denying a Pending Requests

Once a location or a resource has been assigned an approver, the approver can log into the Resource Scheduler user application as the approver and either approve or deny the pending reservation request.

❖ **To approve or deny a pending request:**

1. Log into Resource Scheduler user application as a user that has been defined as an approver for a location or a resource.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Approvals** link in the Tool Bar.

   The Pending Requests page appears.
3. In the list of Pending External Requests, you can approve or deny a request. Click on the approve icon, , to approve the request. Click on the delete icon, , to deny the request.

Legend	
	Sort Column
	Problem with Request
	Current Request
	Approve Request
	Deny Request
	Recurring Request
	More information
	Email Requestor

Chapter 8: Creating and Maintaining Holidays

This chapter contains information about creating and maintaining holidays.

Topics include:

- Overview
- Adding Holidays
- Maintaining Holidays
- Deleting Holidays

Overview

The Enterprise Edition of Resource Scheduler can display holiday information in all Resource Scheduler views for days that contain a holiday. The holidays shown correspond with the country specified for the Location being viewed, and the country specified in the User's personal settings. Users may see two holidays on the same date if the countries are different (and both have a holiday on that date). The holiday is displayed with a flag for that country, and if the user passes the mouse over the flag and pauses, they will see the holiday name.

Resource Scheduler comes pre-defined with common holidays for countries around the world. In addition, you can add or delete holidays as suits the needs of your business.

You can configure a holiday to block resources from being scheduled on that day or not. Holidays do not have to be legal holidays. The Holiday function can be used to indicate important days, such as “Company Outing”.

Adding a Holiday

You can add a holiday in Resource Scheduler Admin. After you create a holiday, you cannot change the country for that holiday nor can you change the date of the holiday. To change the date or the country of the holiday, you must delete the holiday then re-create it.

❖ **To add a holiday:**

1. Log into the Resource Scheduler Admin
   The Home Page appears.
2. Click on the **Holidays** link at the top of the page
   The Holidays Page appears.
3. Select the appropriate country from the drop-down menu and click **Show**.
   The holidays configured for that country are displayed.
4. Click on the link **Click to add a holiday...**
   The Holiday Maintenance Page appears.
5. In the Country drop-down menu, select the country.
6. In the date field, click on the calendar icon to the right of the date field.
   The Calendar navigator appears.
7. Navigate in the calendar and select the date of the holiday.
   The date field now contains the date of the holiday.

You can manually add the date in the Date field by entering the date in the short date format set by your computer. For many computers in the U.S., for example, the short date format is typically `MM/DD/YYYY`. For many European computers, the short date format may be `DD/MM/YYYY`.

8. In the Description field, enter the name of the Holiday.
9. If you wish to prohibit resources from being scheduled on this day, check Block reservations on this holiday.
10. Click the **Submit** button when you are finished.
    The holiday is added.

Editing a Holiday

You can edit the Description field or configure whether to block or not to block the creation of reservations on that date. You cannot change the country for that holiday nor can you change the date of the holiday. To change the date or the country of the holiday, you must delete the holiday then re-create it.

❖ **To edit a holiday:**

1. Log into the Resource Scheduler Admin
   The Home Page appears.
2. Click on the **Holidays** link at the top of the page
   The Holidays Page appears.
3. Select the appropriate country from the drop-down menu and click **Show**.
   The holidays configured for that country are displayed.
4. Click on the holiday you wish to edit.
   The Holiday Maintenance Page appears.
5. You may edit the name of the Holiday in the Description field.
6. If you wish to prohibit resources from being scheduled on this day, check Block reservations on this holiday.
7. Click the **Submit** button when you are finished.
   The holiday is modified.

Deleting a Holiday

You can delete a holiday in Resource Scheduler Admin.

❖ **To delete a holiday:**

1. Log into the Resource Scheduler Admin
   The Home Page appears.
2. Click on the **Holidays** link at the top of the page
   The Holidays Page appears.
3. Select the appropriate country from the drop-down menu and click **Show**.
   The holidays configured for that country are displayed.
4. Click on the Delete icon, , next to the holiday you wish to delete.
   A confirmation dialog appears.
5. Click **OK** to delete the holiday, or click **Cancel** to abort the deletion of the holiday.
   The holiday is deleted.

Chapter 9: Creating and Maintaining Event Calendars

This chapter contains information about creating and maintaining event calendars.

Topics Include:

- Overview
- Creating an Event Calendar
- Accessing an Event Calendar
- Modifying an Event Calendar
- Deleting an Event Calendar

Overview

The Professional and Enterprise editions of Resource Scheduler allow you to publish reservations to an Event Calendar. You can create the name of the Event Calendar to which a user may publish a reservation. Event Calendar is also known as an Export Calendar.

Event Calendars allow users to navigate dates and view reservations, but there is no access to any of the schedule reservation features found in Resource Scheduler.

After installing the Professional or Enterprise Edition, a virtual directory appears in your Web server called `RSEvents`. The `RSEvents` directory contains items that allow you to display a schedule of reservations that have been associated with a specific calendar.

For security reasons, there is no default web page to view Event Calendars. You may manually create your own web page and insert links to Event Calendars that you have created. To further restrict access to an Event Calendar, you can specify an access code for an event calendar.

For example, you created a recurring reservation for training room "Training Room 1A". The reservation is titled “Orientation”. If you publish the reservation to an Event Calendar called "Public Classes", all users who visit the

"Public Classes" calendar in the `RSEvents` page will see the reservation for “Orientation”.

Persons viewing the event calendar can navigate through dates in the "Public Classes" schedule and get information about reservations in the event calendar, but the viewers do not have access to create, modify, or delete reservations. It is anonymous access to published reservation information. Because the Event Calendar is not associated with a resource, the calendar can display events for any number of resources, even events from different locations.

Creating an Event Calendar

You can create an event calendar to which users can publish reservations. This is simply a label that allows users to which to publish a reservation. You can create event calendars that require no access code so that anyone may view the reservations. Also, you can create event calendars that require an access code to restrict the viewing of the event calendars to those who have the access code.

Creating an Event Calendar with no access code

You can create an Event Calendar with no access code so that anyone may view the calendar.

❖ **To create an Event/Export Calendar with no access code:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Calendars** link
   Export Calendars Page appears
3. Click on the link **Click to add a calendar...**
   The Export Calendar Maintenance Page appears
4. Enter description in the Description field. For example "Public Classes".
5. Click **Submit**.
   Event Calendar is created and an Export Calendar ID is assigned. The Export Calendars Page is displayed.
6. Make note of the Export Calendar ID. For example, in the Export Calendar List, "Classes" is listed as "`(#1) Classes: Code=`". **#1** indicates that the ID of this Event Calendar is **1** and there is no access code.
7. Create or modify a reservation in the Resource Scheduler application and publish the reservation to the event calendar in the Publish tab. At least one reservation published to that event calendar is necessary before accessing the event calendar. For more information on creating or modifying a reservation, please consult the Resource Scheduler User Guide.
8. Determine the URL for the event calendar by following the steps listed in the section "Accessing an Event Calendar".

Creating an Event Calendar with an access code

You can create an Event Calendar with an access code to restrict who can view the calendar.

❖ **To create an Event/Export Calendar with an access code:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Calendars** link
   Export Calendars Page appears
3. Click on the link **Click to add a calendar...**
   The Export Calendar Maintenance Page appears
4. Enter description in the Description field. For example "Public Classes".
5. Enter access code in the Access Code field. For example "1234"
6. Click **Submit**.
   Event Calendar is created and an Export Calendar ID is assigned. The Export Calendars Page is displayed.
7. Make note of the Export Calendar ID. For example, in the Export Calendar List, "Classes" is listed as "`(#1) Classes: Code=1234`". **#1** indicates that the ID of this Event Calendar is **1** and the access code is **1234**.
8. Create or modify a reservation in the Resource Scheduler application and publish the reservation to the event calendar in the Publish tab. At least one reservation published to that event calendar is necessary before accessing the event calendar. For more information on creating or modifying a reservation, please consult the Resource Scheduler User Guide.
9. Determine the URL for the event calendar by following the steps listed in the section "Accessing an Event Calendar".

Accessing an Event Calendar

After an event calendar has been created in Admin and at least one reservation has been published to that event calendar by a user, you can access the event calendar.

Accessing an Event Calendar with no access code

❖ **To access an Event Calendar without an access code:**

1. Make note of the Export Calendar ID as indicated in step 7 of "Creating an Event Calendar". For example, in the Export Calendar List, "Classes" is listed as "`(#1) Classes: Code=`". **#1** indicates that the ID of this Event Calendar is **1** and there is no access code.
2. In your browser's address bar, enter the following address:
   `http://127.0.0.1/RSEvents/eventcal.asp?ID=1`
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
3. Replace **1** with the ID of your Event Calendar.
4. Go to that URL.

A Calendar View is the default view for the event calendar. Users may click on the **List View** link to view the event calendar in a list format.

You may wish to manually create a web page that lists the event calendars that are published.

Accessing an Event Calendar with an access code

❖ **To access an Event Calendar with an access code:**

1. Make note of the Export Calendar ID as indicated in step 7 of "Creating an Event Calendar". For example, in the Export Calendar List, "Classes" is listed as "`(#1) Classes: Code=1234`". **#1** indicates that the ID of this Event Calendar is **1** and the access code is **1234**.
2. In your browser's address bar, enter the following address:
   `http://127.0.0.1/RSEvents/eventcal.asp?ID=1`&Code=1231
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
3. Replace **1** with the ID of your Event Calendar.

4. Replace **1234** with the Access Code you have defined.
5. Go to that URL.

A Calendar View is the default view for the event calendar. Users may click on the List View link to view the event calendar in a list format.

Modifying an Event Calendar

You can modify the description and add or remove an access code for an event calendar. To modify a reservation published to an event calendar, please see information about modifying a reservation in the Resource Scheduler User Guide.

❖ **To modify a an Event/Export Calendar:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Calendars** link
   Export Calendars Page appears.
3. Click on the link **Click to add a calendar...**
   The Export Calendar Maintenance Page appears.
4. Modify the description in the Description field, if desired.
5. Add, modify, or delete the access code in the Access Code field, if desired.
6. Click **Submit**.
   Event Calendar is updated. The Export Calendars Page is displayed.

Deleting an Event Calendar

You can delete an event calendar that is published. To delete a reservation published to an event calendar, please see information about modifying a reservation in the Resource Scheduler User Guide.

❖ **To delete an Event/Export Calendar:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Calendars** link
   Export Calendars Page appears.
3. In the Export Calendars List, select the event calendar to delete.

4. Click the **Delete** button.
   The event calendar is deleted and reservations are no longer published to that event calendar.

Chapter 10: Advanced Administration Functions

This chapter contains information on performing advanced functions in Resource Scheduler Admin.

Topics include:

- Overview
- Customizing the User Application Footer
- Enabling System Generated Reminder Messages
- Performing SQL Queries
- Resource Scheduler Maintenance
- Importing Users
- Importing Reservations
- Customizing HTML Tags for UDFs
- Customizing Color List

Overview

Resource Scheduler is an application that can be customized to meet your company's needs. The following are advanced functions to enhance your Resource Scheduler implementation.

After changes are made in the administrative settings, end users must close then restart their browser for the changes to appear. All browser windows must be closed in order to clear out the old pages, including browser windows not running Resource Scheduler.

Customizing the User Application Footer

A footer is displayed at the bottom of every page in the Resource Scheduler User application. You can customize the footer that appears using basic HTML.

By default the text of the footer is:

Note that this footer can be configured by the administrator. You can put links here to your corporate intranet or other sites.
Sample Link 1 Sample Link 2

These lines are generated in the file `Include\inccofooter.asp` as ASP code within standard HTML tags.

❖ **To modify a location:**

1. Log into the machine on which Resource Scheduler has been installed.
2. Open Explorer and navigate to the directory to which Resource Scheduler has been installed.
   Typically, this location is `C:\Inetpub\wwwroot\Rscheduler`
3. Navigate to the `Include` folder.
4. Copy the file `inccofooter.asp` to `inccofooter.bak` create a backup. If you encounter any problems with the footer, you can easily replace the customized footer file with the original.
5. Open `inccofooter.asp` in a text editor.

It is not recommended to open `inccofooter.asp` *in an HTML editor: The HTML editor may remove or modify code without your knowledge.*

6. Replace the ASP code between `<a href="#top">` and `</a>` with your own text.
   There are two lines that contain `<a href="#top">`. You can replace the ASP code on each line with standard HTML.
7. Make sure that the text you have entered adheres to standard HTML.
8. When you have completed customizing your footer, save the file and exit the text editor.

Users may have to close all browser window, and then log back into Resource Scheduler for changes to take place.

Enabling System Generated Reminder Messages

You can enable system generated reminder messages of reservations to be sent to the organizer of the reservation. This feature requires the use of the Windows Task Scheduler, and is only available on IIS servers on Windows 2000 or XP.

When enabled, email messages will be generated for each of the time intervals configured in Options, Email Settings in Resource Scheduler Admin. The organizer of the reservation must have a valid email address. You must create a task to run periodically in the Windows Task Scheduler.

The program to generate reminder messages is EmailRemind.exe and is located in: `C:\Inetpub\wwwroot\Rscheduler\Bin\EmailRemind.exe`

You may need to consult your Windows documentation for configuring a scheduled task for your specific operating system.

To configure system generated reminder messages you must configure Windows Task Scheduler then configure Resource Scheduler Admin to allow email reminders.

You can use command line options for the EmailRemind program when you run it manually. The command line options are case sensitive:
`EmailRemind.exe -l -v`

- `-l` enables logging. This will send event information to a log file, `EmailRemind.log`, located in the same directory as the program.
- `-v` enables verbose mode. This will launch a form that displays all event information

Configuring Windows Task Scheduler

❖ **To configure Windows Task Scheduler:**

1. Install Windows Task Scheduler, if necessary.
2. Click **Start > Programs > Accessories > System Utilities** and select **Task Scheduler**.
3. Double-click on **Create a Scheduled Task**.
   The Scheduled Task Wizard appears.
4. Click **Next**.
   A list of programs to select appears.

5. Click **Browse**.
6. Navigate to `C:\Inetpub\wwwroot\Rscheduler\Bin` and choose `EmailRemind.exe`.
   The dialog "Enter a Name for the task" appears.
7. Replace "**EmailRemind**" with "**RS Email Reminder**" or another name to help you quickly identify the scheduled task.
8. Choose when to execute this task. You may wish to execute this task every day.
9. Click **Next**.
   The dialog "Choose the day and the time" appears.
10. Configure the hour at which to execute this task.
11. Configure the other options as necessary.
12. Click **Next**.
    The "Enter the username and password" dialog appears.
13. Enter a username and a password.
14. Click **Next**.
    A summary dialog appears.
15. Check "Open advanced properties…" to configure this task to run more than one time per day.
16. Click **Finish**.
    The properties dialog appears for this task.
17. Click on the **Schedule** tab.
    The Schedule tab appears.
18. Click on the **Advanced** button.
    Advanced Scheduling Options dialog appears
19. Check **Repeat this task**.
    The repeat options become activated.
20. Configure the frequency to repeat this task.
21. When you have completed, click **OK.**
22. Click **OK** again to exit the properties of the scheduled task.

Configure Email Reminders in Resource Scheduler Admin

After you have configured Windows Task Scheduler, you must configure Resource Scheduler Admin to allow email reminders. The organizer of the reservation must have a valid email address configured before they can receive a reminder. Users can configure this in "My Information", or you can configure this in the Users section of Resource Scheduler Admin.

❖ **To configure Resource Scheduler Admin to allow email reminders:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **Options** link
   The General Configuration Page opens to the General Options tab.
3. Click on the **Email Settings** tab.
   The Email Settings appear.
4. Check **Allow email reminders of schedule**.
5. Select the number of day before a reservation to send the first, second, and third reminders from the drop-down menus.
6. When you have completed, click **Submit**.

Performing SQL Queries

You can perform SQL queries in Resource Scheduler Admin using the SQL Update page, `SQLUpdate.asp`. The SQL Update page allows you to perform

❖ **To perform a SQL query:**

1. Log into the Resource Scheduler Admin
   The Resource Scheduler Admin Home Page appears.
2. In the web browser's Address field, enter the following URL:
   `http://127.0.0.1/RSAdmin/SQLUpdate.asp`
   Replace 127.0.0.1 with the IP address or DNS name of your web server machine.
3. In the text input field, enter your SQL query.
4. Select Treat as single statement, if appropriate.
5. Click **Submit** to process the SQL query. Click **Reset** to erase the text in the text area.
   The SQL query is processed and the results page appears.

Useful SQL Queries

Here are a few useful SQL query statements.

Display the number of resources in Resource Scheduler

```
select count(*) from tbl_res where obsolete_flag=0
```

Display the number of locations in Resource Scheduler

```
select count(*) from tbl_loc where obsolete_flag=0
```

Resource Scheduler Maintenance

Although Resource Scheduler requires little maintenance, you can follow the recommendations below to help maintain Resource Scheduler and ensure optimal performance.

You may wish to review procedures for maintaining your system to see how the following Resource Scheduler Maintenance recommendations may be integrated.

- Perform a nightly backup of the database and the web application files in a separate location.
- Perform a backup of the database and the web application files before performing major configuration changes.
- Backup the registry periodically.
- Purge historical and deleted information periodically.

Performing a Database Backup

It is important to perform a backup of your Resource Scheduler database at regular intervals, prior to upgrades, changes to your system, and prior to performing a database purge.

You must stop the SQL Server Service before you perform a backup. Typically this service is MSSQLServer. You can stop the MSSQLServer service from the Services window in the Microsoft Management Console. Also, you can stop and start the MSSQLServer service using the following DOS commands:

```
net stop MSSQLSERVER
net start MSSQLSERVER
```

Resource Scheduler database files are located in the directory selected when you performed the database installation. The default location is `C:\MSSQL7\Data` or `C:\Program Files\Microsoft SQLServer\MSSQL\Data`. There are two files that contain the data:

- RedESoft_Data.mdf
- RedESoft_Log.ldf

Do not keep a backup on the same machine as your SQL server.

rforming a Web Application Backup

It is important to perform a backup of your Resource Scheduler web application at regular intervals and prior to upgrades or changes to your system. A backup includes both the application files as well as the Registry settings. A Repair/Reinstall will reinstall all of the default files, but you may have added your own graphics or placed files for upload in the `UserData` directory.

Web Application Files

Resource Scheduler web application files are located in the directory selected when you performed the installation. The default location is: `C:\Inetpub\wwwroot\Rscheduler`.

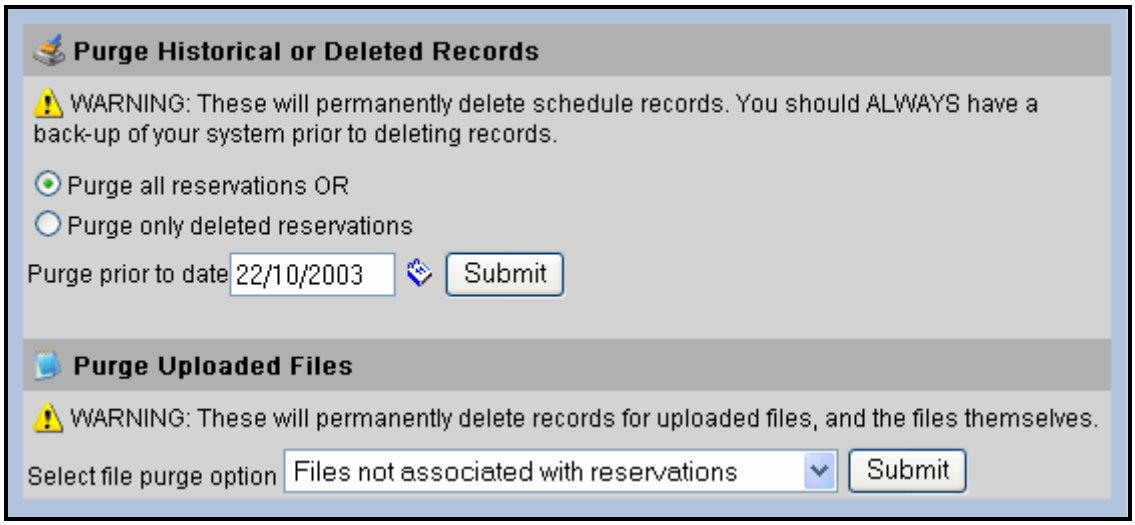
Registry Settings

Many configuration settings are stored in the Registry. You may wish to perform a backup of these settings periodically.

1. Run *Registry Editor*. Click **Start > Run**. In the Open Field, enter **REGEDIT.EXE**. Click **OK**.
   The Registry Editor launches.
2. Navigate to `HKEY_LOCAL_MACHINE\Software\RedESoft`
3. Right-click on `RedESoft` and choose **Export**.
   The Export Registry dialog appears.
4. Navigate to the directory to save the Registry settings.
5. At the bottom of the Export Registry dialog, choose Branch Selected and make sure that `HKEY_LOCAL_MACHINE\SOFTWARE\RedESoft` is listed in the field.
6. Enter a filename with an extension of **.reg**.
7. Click on the **Save** button.
   The Resource Scheduler Registry settings have been saved.

Purging Historical Records

Periodically, historical and deleted records can be purged out of the system. This will nominally improve performance, but is not a required task. Be aware of any special auditing requirements your organization might have - you may not want to purge any records if they are part of an audit trail process. You should also make sure to only purge items not used in any analysis or other reports. By selecting the appropriate option, you can purge either deleted records or all records (meaning past reservations that may no longer be of value). Double-check the dates prior to purging.


Purge Historical or Deleted Records
WARNING: These will permanently delete schedule records. You should ALWAYS have a back-up of your system prior to deleting records.
Purge all reservations OR
Purge only deleted reservations
Purge prior to date 22/10/2003
Submit
Purge Uploaded Files
WARNING: These will permanently delete records for uploaded files, and the files themselves.
Select file purge option
Files not associated with reservations
Submit

Files that have been uploaded to the system as attachments to reservations can also be deleted from the system using this screen. Files that are no longer associated with a reservation, files that are associated with deleted reservations, and file records that are missing the physical files can all be removed from the system. Use the drop down list to select the action you wish to perform.

❖ **To Purge historical and deleted records, and uploaded files:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. Click on the **History** link
   The Delete Historical Records Page appears.
3. Choose **Purge all reservations** or **Purge only deleted reservations**.
4. Configure **Purge prior to date** or click on the Calendar Navigator icon, , to choose a date from the Calendar Navigator.
5. Click **Submit** to perform the purge.
   The selected records have been deleted and the Delete Historical Records Page appears.

6. Choose Purge Uploaded Files to permanently delete records for uploaded files, and the files themselves, if desired.
7. Select a file purge option from the drop-down list.
8. Click **Submit** to delete uploaded files.
   The uploaded files will be deleted.

Importing Users

You can import users into Resource Scheduler. The import process is performed by the stored procedure, `sp_ins_user_import`. In order to run the stored procedure, you first need to make a text file with one line for each user. Each value must be separated with a comma. To insert the records, you can process the text file from the SQL Query Analyzer or from Interactive SQL.

Stored Procedure

```
sp_ins_user_import
```

Syntax:

```
sp_ins_user_import 'Email', 'Name', 'Password',
'Phone', 'Extension', 'Department', Account_code,
NTLM_Name, LDAP_NAME, Use_Login_Name_bit,
Return_error
```

Example:

```
sp_ins_user_import 'user@company.com', 'Sample Name', 'Pwd',
'616-555-1212', 'Sales', '627.8473.2.3994', 0
```

Parameters

Parameter	Description	Max. Characters
`Email`	User's Email address	50 characters
`Name`	User's Name	50 characters
`Password`	User's Password	30 characters
`Phone`	User's phone number	20 characters
`Extension`	User's phone extension	10 characters
`Department`	User's department, if needed	50 characters
`Account_code`	User's Account Code	50 characters
`NTLM_name`	NTLM login name, if needed	50 characters
`LDAP_name`	LDAP login name, if needed	50 characters
`Use_Login_Name`	Use Login Name for login	1=True 0=False
`Return_error_flag`	Return error flag	1= show error and stop 0= don't show error and skip user

If you are using MSDE, you can import the users from the OSQL command-line utility.

❖ **To run the import process from the command line:**

1. Create an ASCII file as shown above,
2. Save the file
3. Run the following statement from the command prompt:

```
osql.exe -U RedESoft -d RedESoft -P RedESoft -i filename
```

Importing Reservations

You can import reservations from another system directly into Resource Scheduler. The import process is done via the stored procedure, `sp_ins_sched_qr`. In order to run the stored procedure, you first need to make a text file with one line for each reservation. Each value must be separated with a comma. To insert the records, you can process the text file from the SQL Query Analyzer or from Interactive SQL.

Recurring options are not supported for imported reservations.

Stored Procedure

`sp_ins_sched_qr`

Syntax

```
resource_id, start_date, end_date, all_day_flag,
pending_flag, sched_desc, user_id, user_flag,
sched_color
```

Parameters

Value	`resource_id`
Format	integer
Description	This is the ID for the resource being reserved. The ID is displayed for each resource on the resource maintenance page
Example	23
Value	`start_date`
Format	smalldatetime, `'YYYY-MM-DD HH:MM:SS AM'`
Description	This is the date & time the reservation starts in smalldatetime format in single quotes.
Example	`'2004-05-05 08:00:00 AM'`
Value	`end_date`
Format	smalldatetime, `'YYYY-MM-DD HH:MM:SS AM'`
Description	This is the date & time the reservation ends in smalldatetime format in single quotes.
Example	`'2004-05-05 08:00:00 AM'`
Value	`all_day_flag`
Format	bit
Description	This determines whether the reservation is for the entire day or

not. If the reservation is not an all day event, set this parameter to 0. Set this to 1 for an all day event. For an all-day event, you must also set the start time to 12:00:00 AM on the day of the reservation and the end time to 12:00:00 AM on the **NEXT** day.

Example 0

Value `pending_flag`

Format bit

Description This determines whether the reservation is pending approval. If the reservation is not pending, set this to 0. If the reservation is pending, set this to 1.

Example 0

Value `sched_desc`

Format text

Description This sets the text description of the reservation. The text must be contained within single quotes. The maximum length is 40 characters.

Example 'Meeting Title'

Value `user_id`

Format integer

Description This sets the reservation to a specific user or to the default user. It is recommended to set this to the default user ID, 0. If you want the reservation associated with a different user ID, insert the desired user's ID number. See the User Maintenance Page for user ID numbers.

Example 0

Value `user_flag`

Format bit

Description This determines whether the user us assigned to this reservation. If user_id is set to 0, is highly recommended to set the user_flag to 0 in order to not assign the Default user to this reservation. If the user_id has been set to a value other than 0, the default user, you would set this to 1.

Example 0

Value sched_color

Format integer

Description This sets the color flag for the reservation.

0 – Gray	5 – Blue
1 – Red	6 – Navy
2 – Orange	7 – Purple
3 – Yellow	8 – Silver
4 – Green	9 – Black

For example if the engineering department normally uses Blue to identify their reservations, the value would be 5.

Example 5

Example

For example, to insert a reservation for the engineering group on May 5, from 8:00-9:00 AM, called “Meeting” for resource 23, the line would be as follows:

```
exec sp_ins_sched_qr 23, '2001-05-05 08:00:00 AM', '2001-05-05
09:00:00 AM', 0, 0, 'Meeting', 0, 0,5
```

Customizing HTML Tags for UDFs

You can use HTML tags within a User Defined Field. It is recommended to use HTML tags in UDFs that are for display only.

The following are a few examples of common HTML that can be used in UDF's to enhance the user interface.

Display an Image

Format:

```
<img src='userdata/imagename.jpg' width=150>
```

This will display an image named “imagename.jpg” located in the c:\inetpub\wwwroot\ResourceScheduler\userdata directory. Images can be jpg’s or gif’s. By setting a value for the width you can control the size of the displayed image.

Make sure that any path referenced is appropriate and does not reference a physical path. Referencing a physical path will cause the image to appear correctly only on the machine on which you add the image. For example, you should never reference an image as

```
<img src='C:\MyImages\imagename.jpg'>
```

Add an Email Link

Format:

```
<a href='MailTo:user@companyname.com'>user@company.com</a>
```

This example will display as a hypertext item within Resource Scheduler. By clicking on the text `user@companyname.com`, the individual’s default email application will be launched and the `To:` field will be populated with the email address listed above.

Add a Hyperlink

Format:

```
<a href='http://www.YourURL.com'>Your text</a>
```

This example shows how to link to other web sites, either internally located on your network or externally located on the Internet. As shown, the display name and the link do not have to be the same.

Open Link in a New Browser

Format:

```
<a href='http://www.YourURL.com' target='new'>Display Name</a>
```

By changing the link to include the target='new' statement, the link will now be opened in a new browser window, instead of using the current browser session.

Open Link in a New Browser with a Display Image

Format:

```
<a href='http://www.YourURL.com' target='new'>
<img src='userdata/imagename.jpg' width=150></a>
```

By replacing "Display Name" in the example above with the image example from above, an image can be displayed in place of the hyperlink text. Also, by adding the target='new' switch, a user can click on the displayed image and a new browser window will open displaying the image in full size.

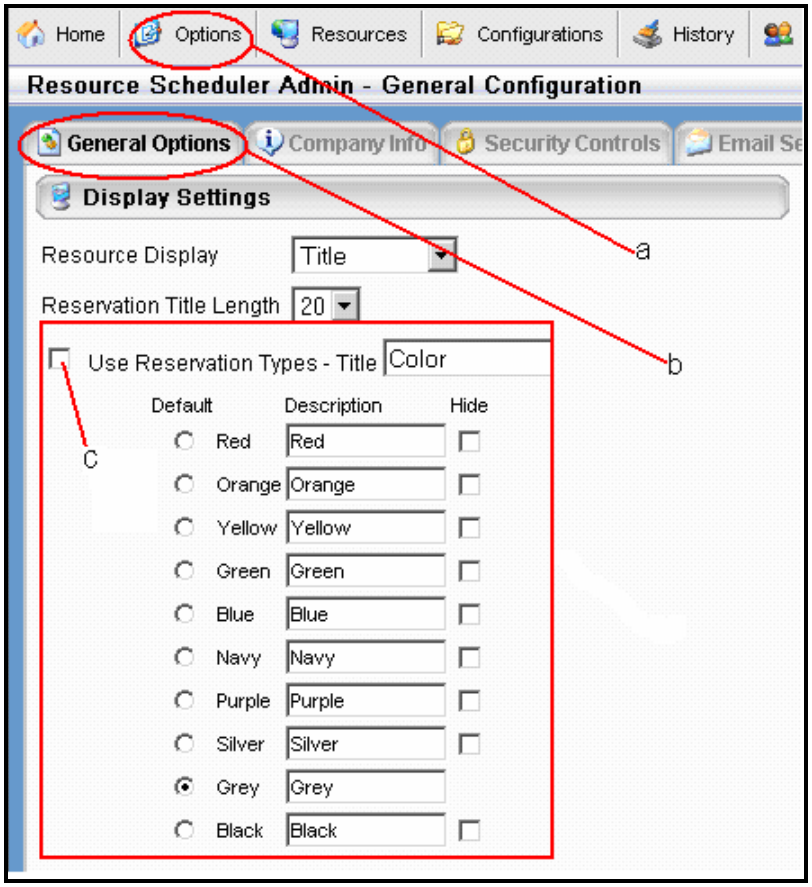
Customizing Color Category Text

You can associate a color with each reservation in Resource Scheduler by selecting the color from a drop-down list on the Reservation Detail screen. You can modify the title and the text of the drop-down list to classify reservations in a different manner, such as by activity type or status. The individual colors can not be modified, but the label for each color can be changed.

In order to modify this list you will need administrator access to the web server running Resource Scheduler.

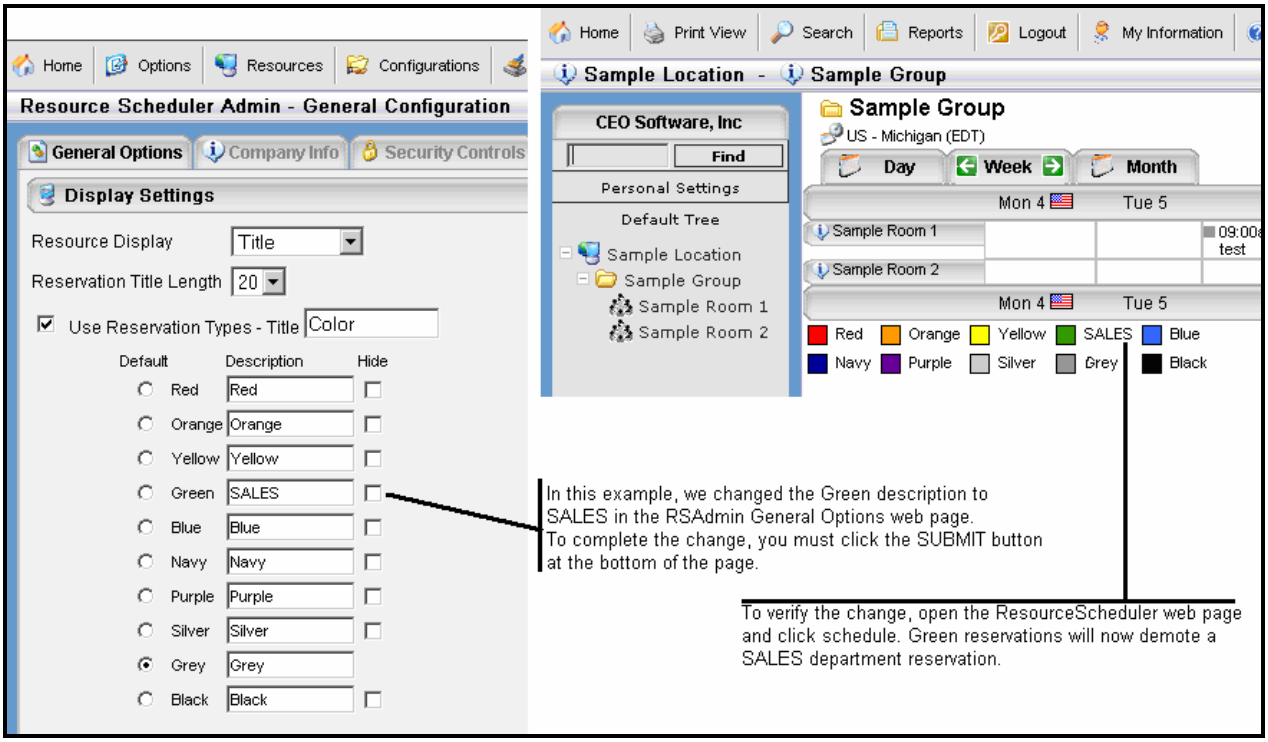
❖ **To customize the Color Title text for categories:**

1. Log into the Resource Scheduler Admin.
   The Resource Scheduler Admin Home Page appears.
2. (a)Click on the **Options** link.
3. (b)The General Configuration Page opens to the General Options tab.
4. (c) To associate reservation types with colors, check the Use Reservation Types check box.

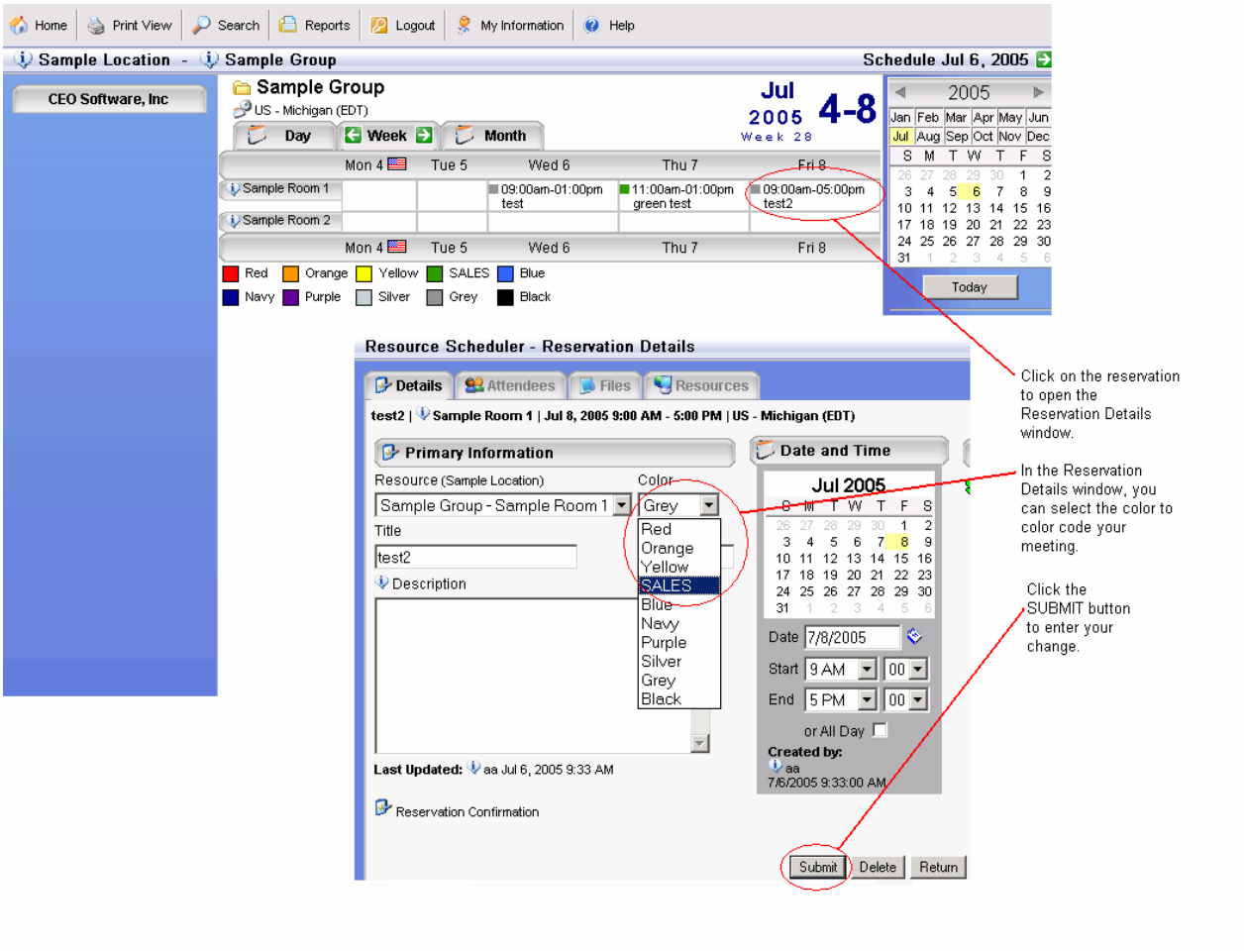


By default, grey is the default color associated with default reservations. To change the default reservation color, click on the redial button corresponding to the color you select as the default meeting color.

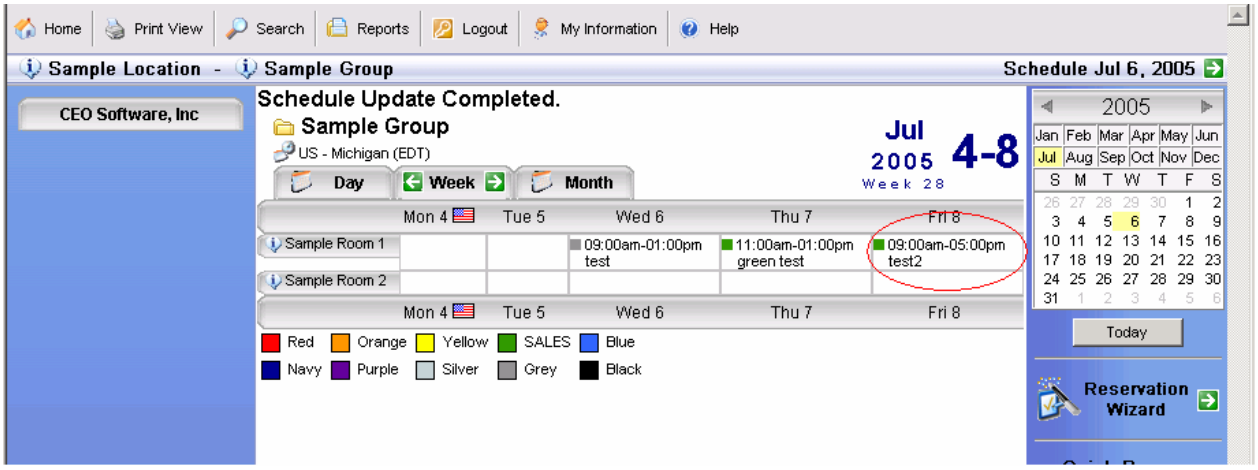
You can also change the Reservation description by replacing the Description text. For example, suppose we want to color code all sales department meetings with green. Click the **Submit** button at the bottom of the web page to make the change.



In this example, grey is the default color so that anytime a reservation is created it will still be colored grey. To change the color of your reservation, click on your reservation and a Reservation Details window appears.



Once you click SUBMIT, the color code for the reservation changes.



Appendix A: Forms and Checklists

This appendix contains useful forms and checklists to help you plan your Resource Scheduler environment. You may photocopy these forms. Each form is presented on a separate page for ease of use.

Here is a list of common characteristics for items that are frequently tracked with Resource Scheduler.

Company Car
VIN, vehicle make, vehicle model, passenger capacity, transmission type (automatic/manual), cost per day, insurance policy number, and emergency service numbers

Laptop
Serial Number, LCD Resolution, Software installed, CD Burner, DVD Burner, RAM, Hard drive, CPU

Conference Room or Training Room
Room number, room size, capacity, size of whiteboard, size of main table, projector in room, network drop available, extension, speaker phone available, A/V Services, Lighting notes, number of PCs,

Guest Office
Room number, room size, size of whiteboard, network drop available, extension, speaker phone available

Company Apartment
Kitchen amenities, address, direction to apartment, housekeeping available, fireplace, number of beds, type of beds, URL for local guide

Collecting Location Information

Use this form to record information about a specific location. Use one form per location.

Location Name: _____

Location Characteristics	Description
After Hours Access	
Available Hours	
Contact email	
Currency	
Description	
Weather URL or ZIP code	

Groups in Location

Collecting Group Information

Use this for to record information about a specific group. Use one form per group.

Group Name: _____

Group Location: _____

Group Characteristic (UDF)	Description
Allow pending/Wait List	
Contact email	

Collecting Resource Information

Use this for to record information about a specific resource. Use one form per resource.

Resource Name: _____

Resource Location: _____

Resource Group: _____

Resource Characteristics (UDF)	Description
Allow pending/Wait List	
Contact email	

Appendix B: Stored Procedures

Stored Procedures Overview

In order to run the stored procedure, you first need to make a text file with one line for each reservation.
Process the text file from the SQL Query Analyzer or from Interactive SQL.
Separate each parameter with a comma.
Surround any `varchar` parameter with quotes.

sp_ins_requser_import

The following Stored Procedure describes importing user records into the Resource Scheduler Web Requests module database. This Stored Procedure identifies accounts where the user ID's are automatically generated by the Resource Scheduler Web Requests module.

`PROCEDURE sp_ins_requser_import`

Parameter	Data Type	Description
`@user_email`	`varchar(50)`	User's Email address
`@user_first_name`	`varchar(25)`	User's First Name
`@user_last_name`	`varchar(25)`	User's Last Name
`@pwd`	`varchar(30)`	User's Password
`@phone`	`varchar(15)`	User's phone number
`@show_err`	`bit`	Return error flag; 0= don't show error and skip user, 1= show error and stop
`@use_cookie_flag*`	`bit`	Use cookie flag; 0= do not save a cookie on the user's computer to remember their logon information; 1= save a cookie on the user's computer to remember their logon information; defaults to the value set for the Default User
`@lang_id*`	`tinyint`	Language ID; 1=Common English, 2=Deutsch, 4=Français; defaults to the value set for the Default User

* indicates parameter is optional

Example

```
EXEC sp_ins_requser_import 'user@company.com',
'Sample', 'Name', 'Pwd', '616.555.1212' 0
```

sp_ins_requser_import_with_id

The following Stored Procedure describes importing user records into the Resource Scheduler Web Requests module database. This Stored Procedure

allows the User ID to be specified, assuming you have a unique, numeric value for a user ID.

Parameter	Data Type	Description
@user_id	int	Unique integer representing the user account
@user_email	varchar(50)	User's Email address
@user_first_name	varchar(25)	User's First Name
@user_last_name	varchar(25)	User's Last Name
@user_pwd	varchar(30)	User's Password
@user_phone	varchar(15)	User's phone number
@show_err	bit	Return error flag; 0= don't show error and skip user, 1= show error and stop
*@use_cookie_flag	bit	Use cookie flag; 0= do not save a cookie on the user's computer to remember their logon information; 1= save a cookie on the user's computer to remember their logon information; defaults to the value set for the Default User
*@lang_id	tinyint	Language ID; 1=Common English, 2=Deutsch, 4=Français; defaults to the value set for the Default User

sp_ins_res_import

The following Stored Procedure enables you to import resources into Resource Scheduler.

Parameter	Data Type	Description
res_id	int	Unique Resource ID - leave 0 for auto assignment
grp_id	int	ID of group for Resource
res_type_id	smallint	Resource Type ID
display_order	smallint	Sort order for resource - optional
res_desc	varchar(30)	Longer Description of resource
res_hdr	varchar(16)	Short description of resource
tree_msg	varchar(75)	Msg displayed in Java applet
contact_info	varchar(255)	Textual information about resource contact
contact_email	varchar(50)	Email of contact person
capacity	smallint	Capacity if relevent, else 0
cost_amt	smallmoney	Cost per hour/day, typically 0
cost_type	char(3)	Either 'HR' , 'DAY', or 'EACH'; required even if not used
sec_flag	bit	Typically 0 - this is for older versions
sec_pwd	varchar(30)	Typically blank - '' - this is for older versions
allow_pending_flag	bit	0 or 1, usually 0 for imported data
notify_usage_flag	bit	0 or 1, usually 0 for imported data
max_reserve	smallint	Typically 0 - max minutes a resource can be booked
ext_desc	varchar(255)	For extended descriptions of resource

addl_email	varchar(1000)	Any additional emails to be notified - usually blank
wait_list	bit	0 or 1, usually 0 for imported data
inactive_flag	bit	0 or 1, usually 0 for imported to – indicates if resource is active
setup_time	int	Time in minutes for setup or set to 0 if setup isn't required
cleanup_time	int	Time in minutes for cleanup or set to 0 if setup isn't required

Example

```
EXEC sp_ins_res_import 999, 1, 1, 99, 'Longer Description of
Room', 'Short Desc.', 'Tree text', '','',0, 0, 'HR', 0, '', 0,
0, 0, 'Extend Desc', '', 0, 0, 0, 0
```

sp_ins_sched_qr

The following Stored Procedure enables you to import reservations into Resource Scheduler.

Recurring options are not supported for imported reservations. Reservations that contain multiple resources are not supported. While this is possible, it is beyond the scope of this document and you should contact PeopleCube Professional Services.

Parameter	Data Type	Description
resource_id	int	This is the ID for the resource being reserved. The ID is displayed for each resource on the resource maintenance page
start_date	smalldatetime	This is the date & time the reservation starts in smalldatetime format in single quotes.
end_date	smalldatetime	This is the date & time the reservation ends in smalldatetime format in single quotes.
all_day_flag	bit	This determines whether the reservation is for the entire day or not. If the reservation is not an all day event, set this parameter to 0. Set this to 1 for an all day event. For an all-day event, you must also set the start time to 12:00:00 AM on the day of the reservation and the end time to 12:00:00 AM on the NEXT day.
pending_flag	bit	This determines whether the reservation is pending approval. If the reservation is not pending, set this to 0. If the reservation is pending, set this to 1.
sched_desc	varchar(40)	This sets the text description of the reservation. The text must be contained within single quotes. The maximum length is 40 characters.
user_id	int	This sets the reservation to a specific user or to

		the default user. It is recommended to set this to the default user ID, 0. If you want the reservation associated with a different user ID, insert the desired user's ID number. See the User Maintenance Page for user ID numbers.
user_flag	bit	This determines whether the user us assigned to this reservation. If user_id is set to 0, is highly recommended to set the user_flag to 0 in order to not assign the Default user to this reservation. If the user_id has been set to a value other than 0, the default user, you would set this to 1.
sched_color	int	This sets the color flag for the reservation. 0 – Gray 5 – Blue 1 – Red 6 – Navy 2 – Orange 7 – Purple 3 – Yellow 8 – Silver 4 – Green 9 – Black For example if the engineering department normally uses Blue to identify their reservations, the value would be 5

Example

For example, to insert a reservation for the engineering group on May 5, from 8:00-9:00 AM, called "Meeting" for resource 23, the line would be as follows:

```
exec sp_ins_sched_qr 23, '2001-05-05 08:00:00 AM', '2001-05-05
09:00:00 AM', 0, 0, 'Meeting', 0, 0,5
```

sp_ins_user_import

The following Stored Procedure enables you import users. The User ID is automatically assigned during import.

Parameter	Data Type	Description
Email	varchar(50)	User's Email address
Name	varchar(50)	User's Name
Password	varchar(30)	User's Password
Phone	varchar(20)	User's phone number
Extension	varchar(10)	User's phone extension
Department	varchar(50)	User's department, if needed
Account Code	varchar(50)	User's Account Code
NTLM Name	varchar(50)	NTLM login name, if needed
LDAP Name	varchar(50)	LDAP login name, if needed
Use Login Name	bit	Use Login Name for login: 0=False 1=True
Return Error Flag	bit	Return error flag: 0=Do not show error and skip user 1=Show error and stop

Example

```
EXEC sp_ins_user_import 'user@company.com', 'Sample Name', 'Pwd',
'616.555.1212', 'ext 999', 'Sales', '627.8473.2.3994', '', '', 0, 0
```

sp_ins_user_import_with_id

The following Stored Procedure enables you import users and specify the User ID.

Parameter	Data Type	Description
User ID	int	Unique integer representing the user account
Email	varchar(50)	User's Email address
Name	varchar(50)	User's Name
Password	varchar(30)	User's Password
Phone	varchar(20)	User's phone number
Extension	varchar(10)	User's phone extension
Department	varchar(50)	User's department, if needed
Account Code	varchar(50)	User's Account Code
NTLM Name	varchar(50)	NTLM login name, if needed
LDAP Name	varchar(50)	LDAP login name, if needed
Use Login Name	bit	Use Login Name for login: 0=False 1=True
Return Error Flag	bit	Return error flag: 0=Do not show error and skip user 1=Show error and stop

sp_resource_udf_import

The following Stored Procedure allows you to import User Defined Fields.

Parameter	Data Type	Description
res_id	int	Unique Resource ID
udf_id	int	ID of UDF being referenced
value	varchar(255)	Value of the UDF
display_order	smallint	Display order of UDF, if needed. 99 is default

Example

The example below defines 4 UDFs for room characteristics/values as Administrator, Usage Rules, Machine Name and Phone. You might have the following for importing a single resource:

```
EXEC sp_resource_udf_import 999, 179, 'bneal@corp.com', 1
EXEC sp_resource_udf_import 999, 180, 'Internal Only', 2
EXEC sp_resource_udf_import 999, 181, 'REDESOFT\MIDWEST\RF2211', 3
EXEC sp_resource_udf_import 999, 182, '231.922.0980 ext 333', 4
```

sp_sched_udf_import

Parameter	Data Type	Description
sched_id	int	Unique Schedule ID
udf_id	int	ID of UDF being referenced
value	varchar(255)	Value of the UDF
display_order	smallint	Display order of UDF, if needed. 99 is default

Example

The example below defines 3 UDFs for optional reservation data as billable project (Check box), customer on-site (Check box) and chargeback code (text). As an import, you might have the following for a single resource:

```
EXEC sp_sched_udf_import -1999948980, 174, 'True', 1
EXEC sp_sched_udf_import -1999948980, 175, 'True', 2
EXEC sp_sched_udf_import -1999948980, 176, ''AC-1131, 3
```

sp_upd_requser_api

The following Stored Procedure enables you to update user information in the Web Request module. If `use_cookie_flag` or `lang_id` are not provided, these fields will not be updated.

Parameter	Data Type	Description
user_email	varchar(50)	User's email address
user_first_name	varchar(25)	User's First Name
user_last_name	varchar(25)	User's Last Name
user_phone	varchar(20)	User's Phone
obsolete_flag	bit	Obsolete Account; 0=Active User; 1=Inactive User
show_err	bit	Return error flag; 0= don't show error and skip user, 1= show error and stop
*use_cookie_flag	bit	Use cookie flag; 0=Do not save a cookie on the user's computer to remember their logon information; 1=Save a cookie on the user's computer to remember their logon information; if value is not provided, it will not be updated.
*lang_id	tinyint	Language ID: 1=Common English 2=Deutsch 4=Français If value is not provided, it will not be updated.

*Optional parameters

sp_upd_user_api

The following Stored Procedure enables you to add new users or update existing users, and enables you to associate a user with an NTLM or an LDAP account name.

Parameter	Data Type	Description
link_type	smallint	0=link by email; 1=link by NTLM value; 2=link by LDAP value
user_LDAP	varchar(50)	User's LDAP account name
user_NTLM	varchar(50)	User's NTLM account name
user_email	varchar(50)	User's email address
user_name	varchar(50)	User's Name
user_phone	varchar(20)	User's Phone
user_phone_ext	varchar(10)	User's Phone Extension
user_dept	varchar(50)	User's Department
user_acct_code	varchar(50)	User's Account Code
obsolete_flag	bit	Obsolete Account; 0=Active User; 1=Inactive User

Example

```
EXEC sp_upd_user_api 0, '', '', 'user@company.com', 'Sample Name',
'616.555.1212', 'ext 999', 'Sales', '627.8473.2.3994', 0
```

Appendix B: Troubleshooting Resource Scheduler Admin

You can view the most up-to-date technical documentation in the PeopleCube Support Center at:
`http://connect.PeopleCube.com/support`

Issue: You cannot create more than one location or you are unable to access the Resource Scheduler User application.

Cause: Various: Incorrect license key, Registry settings cannot be read, Windows Scripting is older than version 5

Resolution:

1. You do not have a proper license key for the software or the trial has expired. Ensure that the license key you received matches the license key in Resource Scheduler Admin in Options, Company Info. If it is incorrect, update the license key in Resource Scheduler Admin and click **Submit**.

2. Resource Scheduler cannot read the registry settings, or has an older version of Windows Scripting (Version 5.0 or later is needed). This is likely due to either a system-wide change in registry permissions or the deletion of the `HKEY_LOCALMACHINE\Software\RedESoft` registry values.

3. Verify that Windows Scripting is version 5 or higher.

Issue: When adding a user, you receive "No locations or groups found for this user!"

Cause: No location or group exists when you are attempting to create a user.

Resolution: You must create at least one location and one group before you can create users. For information on creating locations and groups, please consult Chapter 5 – Locations, Groups, Resources, and Combinations.

Issue: When you make changes to options in the Options Page in Resource Scheduler Admin, the options are not saved.

Cause: The anonymous user account does not have the rights to update the registry.

Resolution: You must disable anonymous access to the `RSAdmin` virtual directory.

Navigate to the `RSAdmin` virtual directory in the Internet Services snap-in.

1. Right-click on the `RSAdmin` directory and select **Properties**.
   The Properties dialog appears.
2. Select the Directory Security tab.
   The Directory Security tab appears.
3. Press the **Edit** button for anonymous access.
   The Edit Anonymous Access dialog appears.
4. Unselect the option “Allow Anonymous Access”,
5. Select **Basic Authentication**.
6. Save your changes.
7. Access Resource Scheduler Admin.
   A login dialog should appear.
8. Enter a valid username and password and click **OK**.
   Resource Scheduler Admin appears.